

Still the world's best selling Amiga magazine!

CU

# AMIGA

OCTOBER 1995 \$4.95 US/\$7.95 CAN • 100% NEW • 100% NEW • 100% NEW

Exclusive  
Interview:  
Amiga  
Inc

## LAST ISSUE EVER!

*Get it while you can*

**Demo Scene  
Special**

**Amiga-PC  
Networks**

**Bill Gates  
Halloween Mask**

**Plus: Atéo Bus  
Scala upgrades  
NetConnect 2  
Sound Lab**

No CD-ROM? Ask your newsagent!

CD edition also available





# Weird Science

Weird Science Ltd, Q House, Troon May Business Centre, Mumberstone Lane, Letchworth, Herts SG4 5ST

Tel. 0116 246 3800  
Fax. 0116 246 3801  
sales@weirdscience.co.uk  
www.weirdscience.co.uk



Foundation is a real-time strategy war game which incorporates tactical strategy elements with interesting new concepts. Accompanied by unique game systems will enjoy the advanced control and complex resource management. Moreover, you'll enjoy the flexibility of the campaign when played to the hilt from your desktop or with fun in abundance with experience.

Every game scenario provided with some mission goals to be achieved with. Terrain games provide your army with unique landscapes with various terrain and trees.

- 3D, 32-bit and 64-bit graphics modes are supported
- Features of special unit effects with an option to use AI
- The game offers you the ability to use strategies for different scenarios
- Use a database of 10 different, unique and 1000 different trees
- Use a limited help or tutorial to learn more
- Fully customizable and system friendly
- Background music and sound effects (CD audio tracks)
- The game includes many languages with the language packs
- New updates for the internet regularly to provide advanced features
- Full PC support and specifications are in the first update



Foundation requires a 3 May A44 equipped image (eg. A4000). The game has been developed for 3000 lowest Amiga but as a 3000 is difficult to get the game running. The 3000 version will require a 3000 or 3000+ equipped image (eg. A4000) and a 3000 or 3000+ equipped image (eg. A4000) and a 3000 or 3000+ equipped image (eg. A4000).

Every scenario is also helped on it between the amount of data access during the game. There will only 3 types of memory will have the game will access the data very frequently. While the game plays, and it's own video system it is recommended that you use a dedicated video program for better support and flexibility, not to mention speed.



## FOUNDATION £29.99



You are a Scientist, the best of its kind!

Adapted to the Genetic Species, you'll discover your mission to adapt to your environment. You'll have the ability of humans, cyborgs, and robots and more than 100 different species. Genetic Species is a real-time strategy game with 10 different scenarios, 100 different units, 100 different weapons, and 100 different units. You'll have the ability of humans, cyborgs, and robots and more than 100 different species. Genetic Species is a real-time strategy game with 10 different scenarios, 100 different units, 100 different weapons, and 100 different units.

- 3D, 32-bit and 64-bit graphics modes are supported
- Features of special unit effects with an option to use AI
- The game offers you the ability to use strategies for different scenarios
- Use a database of 10 different, unique and 1000 different trees
- Use a limited help or tutorial to learn more
- Fully customizable and system friendly
- Background music and sound effects (CD audio tracks)
- The game includes many languages with the language packs
- New updates for the internet regularly to provide advanced features
- Full PC support and specifications are in the first update

## GENETIC SPECIES

Requires: VGA, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592, 17179869184, 34359738368, 68719476736, 137438953472, 274877906944, 549755813888, 1099511627776, 2199023255552, 4398046511104, 8796093022208, 17592186044416, 35184372088832, 70368744177664, 140737488355328, 281474976710656, 562949953421312, 1125899906842624, 2251799813685248, 4503599627370496, 9007199254740992, 18014398509481984, 36028797018963968, 72057594037927936, 144115188075855872, 288230376151711744, 576460752303423488, 1152921504606846976, 2305843009213693952, 4611686018427387904, 9223372036854775808, 18446744073709551616, 36893488147419103232, 73786976294838206464, 147573952589676412928, 295147905179352825856, 590295810358705651712, 1180591620717411303424, 2361183241434822606848, 4722366482869645213696, 9444732965739290427392, 18889465931478580854784, 37778931862957161709568, 75557863725914323419136, 151115727451828646838272, 302231454903657293676544, 604462909807314587353088, 1208925819614629174706176, 2417851639229258349412352, 4835703278458516698824704, 9671406556917033397649408, 19342813113834066795298816, 38685626227668133590597632, 77371252455336267181195264, 154742504910672534362390528, 309485009821345068724781056, 618970019642690137449562112, 1237940039285380274899124224, 2475880078570760549798248448, 4951760157141521099596496896, 9903520314283042199192993792, 19807040628566084398385987584, 39614081257132168796771975168, 79228162514264337593543950336, 158456325028528675187087900672, 316912650057057350374175801344, 633825300114114700748351602688, 1267650600228229401496703205376, 2535301200456458802993406410752, 5070602400912917605986812821504, 10141204801825835211973625643008, 20282409603651670423947251286016, 40564819207303340847894502572032, 81129638414606681695789005144064, 162259276829213363391578010288128, 324518553658426726783156020576256, 649037107316853453566312041152512, 1298074214633706907132624082305024, 2596148429267413814265248164610048, 5192296858534827628530496329220096, 10384593717069655257060992658440192, 20769187434139310514121985316880384, 41538374868278621028243970633760768, 83076749736557242056487941267521536, 166153499473114484112975882535043072, 332306998946228968225951765070086144, 664613997892457936451903530140172288, 1329227995784915872903807060280344576, 2658455991569831745807614120560689152, 5316911983139663491615228241121378304, 10633823966279326983230456482242756608, 21267647932558653966460912964485513216, 42535295865117307932921825928971026432, 85070591730234615865843651857942052864, 170141183460469231731687303715884105728, 340282366920938463463374607431768211456, 680564733841876926926749214863536422912, 1361129467683753853853498429727072845824, 2722258935367507707706996859454145691648, 5444517870735015415413993718908291383296, 10889035741470030830827987437816582766592, 21778071482940061661655974875633165533184, 43556142965880123323311949751266331066368, 87112285931760246646623899502532662132736, 174224571863520493293247799005065324265472, 348449143727040986586495598010130648530944, 696898287454081973172991196020261297061888, 1393796574908163946345982392040522594123776, 2787593149816327892691964784081045188247552, 5575186299632655785383929568162090376495104, 11150372599265311570767859136324180752990208, 22300745198530623141535718272648361505980416, 44601490397061246283071436545296723011960832, 89202980794122492566142873090593446023921664, 178405961588244985132285746181186892047843328, 356811923176489970264571492362373784095686656, 713623846352979940529142984724747568191373312, 1427247692705959881058285969449495136382746624, 2854495385411919762116571938898990272765493248, 5708990770823839524233143877797980545530986496, 11417981541647679048466287755595961091061972992, 22835963083295358096932575511191922182123945984, 45671926166590716193865151022383844364247891968, 91343852333181432387730302044767688728495783936, 182687704666362864775460604089535377456991567872, 365375409332725729550921208179070754913983135744, 730750818665451459101842416358141509827966271488, 1461501637330902918203684832716283019655932542976, 2923003274661805836407369665432566039311865085952, 5846006549323611672814739330865132078623730171904, 11692013098647223345629478661730264157247460343808, 23384026197294446691258957323460528314494920687616, 46768052394588893382517914646921056628989841375232, 93536104789177786765035829293842113257979682750464, 187072209578355573530071658587684226515959365500928, 374144419156711147060143317175368453031918731001856, 748288838313422294120286634350736906063837462003712, 1496577676626844588240573268701473812127674924007424, 2993155353253689176481146537402947624255349848014848, 5986310706507378352962293074805895248510699696029696, 11972621413014756705924586149611790497021399392059392, 23945242826029513411849172299223580994042798784118784, 47890485652059026823698344598447161988085597568237568, 95780971304118053647396689196894323976171195136475136, 191561942608236107294793378393788647952342390272950272, 383123885216472214589586756787577295904684780545900544, 766247770432944429179173513575154591809369561091801088, 1532495540865888858358347027150309183618739122183602176, 3064991081731777716716694054300618367237478244367204352, 6129982163463555433433388108601236734474956488734408704, 1225996432692711086686677621720247346894991297746881738, 2451992865385422173373355243440494693789982595493763476, 4903985730770844346746710486880989387579965190987526952, 9807971461541688693493420973761978775159930381975053904, 19615942923083377386986841947523957550319860763950107808, 39231885846166754773973683895047915100639721527900215616, 78463771692333509547947367790095830201279443055800431232, 156927543384667019095894735580191660402558886111600862464, 313855086769334038191789471160383320805117772223201724928, 627710173538668076383578942320766641610235544446403449856, 1255420347077336152767157884641533283220471088892806899712, 2510840694154672305534315769283066566440942177785613799424, 5021681388309344611068631538566133132881884355571227598848, 10043362776618689222137263077132266265763768711142455197696, 20086725553237378444274526154264532531527537422284910395392, 40173451106474756888549052308529065063055074844569820790784, 80346902212949513777098104617058130126110149689139641581568, 160693804425899027554196209234116260252220299378279283163136, 321387608851798055108392418468232520504440598756558566326272, 642775217703596110216784836936465041008881197513117132652544, 1285550435407192220433569673872930082017762395026234265305088, 2571100870814384440867139347745860164035524790052468530610176, 5142201741628768881734278695491720328071049580104937061220352, 10284403483257537763468557390983440656142099160209874122440704, 20568806966515075526937114781966881312284198320419748244881408, 41137613933030151053874229563933762624568396640839496489762816, 82275227866060302107748459127867525249136793281678992979525632, 164550455732120604215496918255735050498273586563357985959051264, 329100911464241208430993836511470100996547173126715971918102528, 658201822928482416861987673022940201993094346253431943836205056, 1316403645856964833723975346045880403986188692506863887672410112, 2632807291713929667447950692091760807972377385013727775344820224, 5265614583427859334895901384183521615944754770027455550689640448, 10531229166855718669791802768367043231889509540054911101379280896, 21062458333711437339583605536734086463779019080109822202758561792, 42124916667422874679167211073468172927558038160219644405517123584, 84249833334845749358334422146936345855116076320439288811034247168, 168499666669691498716668844293872691710232152640878577622068494336, 336999333339382997433337688587745383420464305281757155244136988672, 673998666678765994866675377175490766840928610563514310488273977344, 1347997333357531989733350754350981533681857221127028620976547954688, 2695994666715063979466701508701963067363714442254057241953095909376, 5391989333430127958933403017403926134727428884508114483906191818752, 10783978666860255917866806034807852269454857769016228967812383637504, 21567957333720511835733612069615704538909715538032457935624767275008, 43135914667441023671467224139231409077819431076064915871249534550016, 86271829334882047342934448278462818155638862152129831742499069100032, 172543658669764094685868896556925636311277724304259663484998138200064, 345087317339528189371737793113851272622555448608519326969996276400128, 690174634679056378743475586227702545245110897217038653939992552800256, 1380349269358112757486951172455405090490221794434077307879985105600512, 2760698538716225514973902344910810180980443588868154615759970211201024, 5521397077432451029947804689821620361960887177736309231519940422402048, 11042794154864902059895609379643240723921774355472618463039880844804096, 22085588309729804119791218759286481447843548710945236926079761689608192, 44171176619459608239582437518572962895687097421890473852159523379216384, 88342353238919216479164875037145925791374194843780947704319046758432768, 176684706477838432958329750074291851582748389687561895408638093516865536, 353369412955676865916659500148583703165496779375123790817276187033731072, 706738825911353731833319000297167406330993558750247581634552374067462144, 1413477651822707463666638000594334812661987117500495163269104748134924288, 2826955303645414927333276001188669625323974235000990326538209496269848576, 5653910607290829854666552002377339250647948470001980653076418992539697152, 11307821214581659709333104004754678501295896940003961306152837985079394304, 22615642429163319418666208009509357002591793880007922612305675970158788608, 45231284858326638837332416019018714005183587760015845224611351940317577216, 90462569716653277674664832038037428010367175520031690449222703880635154432, 180925139433306555349329664076074856020734351040063380898445407761270308864, 361850278866613110698659328152149712041468702080126761796890815522540617728, 723700557733226221397318656304299424082937404160253523593781631045081235456, 1447401115466452442794637312608598848165874808320507047187563262090162470912, 2894802230932904885589274625217197696331749616641014094375126524180324941824, 5789604461865809771178549250434395392663499233282028188750253048360649883648, 11579208923731619542357098500868790785326998466564056377500506096721299767296, 23158417847463239084714197001737581570653996933128112755001012193442599534592, 46316835694926478169428394003475163141307993866256225510002024386885199069184, 92633671389852956338856788006950326282615987732512451020004048773770398138368, 1







# CONTENTS

## News

- 11** CU Closes down, Commodore 64 returns, Photogenics NG
- 14** Advertisers Index

## Editorial



Make the most of this month's CU Amiga as it's the last you'll ever see. Sadly the magazine has been forced to close. See the news pages for the full story. Even so, this hasn't stopped us banging out one last top notch issue for you. In fact we've tried harder than ever before to make sure this is an issue to remember.

It's been great fun for us all over the years, and a great privilege for me personally to occupy this position. Many thanks for reading. Enjoy this one and I'll see you again soon.

**Terry Horgan, Editor**

## Screen Scene

### Game Previews

- 44** Wasted Dreams
- Silly Putty
- Lambda

### Game Reviews

- 48** Sixth Sense Investigations
- 48** X-Men: Ravages of the Apocalypse
- 48** Quake Resurrection pack
- 49** Tips Central
- 50** Explorer 2260 Diary

## Tech Scene

- 52** Netconnect 2
- 56** NewsRog
- 57** Resecute
- 58** Power CD-R
- 61** Ateo Tower
- 62** Ateo Bus
- 64** Kodak DC210
- 66** PD.net
- 68** PD.post
- 70** Art Gallery
- 72** User Groups



## Cover disks

### 18 Super CD-ROM 27

Cinema4D headlines the CD this month, along with loads of special test drive bits and bobs, back catalogue articles and all the usual stuff that makes CU64s the best in the world.

### 18 Cover disks

It's that Cinema4D again! Not quite as much stuff as on the CD but the full program is here nonetheless.



## Workshop

- 76** Amiga C Programming
- 80** Sound Lab
- 82** Emulation
- 84** Net God
- 85** Surf of the Month
- 86** Wired World
- 88** Reviews Index
- 93** Back Issues
- 94** Q&A
- 97** A to Z
- 98** Backchat
- 102** Points of View
- 106** Techno Tragedies







## FLOPPY DRIVES

- A200 Internal Drive ... £24.95
- A200/A12000 Int Drive ... £34.95
- A2000 Internal Drive ... £29.95
- PC8000 External Drive ... £29.95
- 5.1.70MB Int. Drive ... £65.95
- 5.1.70MB Int. A4000 ... £60.95

## VIDEO BACKUP

- Backup 520MB onto a 4th tape
- Video Backup Photo ... £20
- Video Backup Scan ... £20

## PICASSO IV

- Flies 64 bit graphics card
- 64M of display memory
- For the A2000/5000/4000
- Inc. ScanDouble/Video Four
- Power ... £249.95

## LOWEKA ZIP

- Inc. cable, Zip lock cartridge
- Zip 100MB SCSI ... £115.95
- Zip 100MB/Scquid ... £148.95
- Zip 100MB Internal ... £149.95
- Zip 100MB Disk ... £74.95
- \*Requires Squid Interface



JAMES CHOW

£9.95

## MIDGELLENBUR

- Power Graphic Tablet ... £229.95
- Zip 84M per MB ... £16.95
- Realistic 3D game ... £15.95
- Big Red Adventure CD ... £19.95
- Heavy Duty PS2 200-w ... £65.95
- Official Amiga Mouse ... £5.95
- Games joystick ... £14.95

## FLATBED SCANNER

- Ignis A4 flatbed scanner
- 24-bit colour scanning
- Grayscale and line art modes
- OCB software available £20
- Ignis CT-5000 ... £119.95
- Ignis CT-5000 + chr ... £229.95

## HAND SCANNERS

- Includes interface and software
- Colour scanner is VGA 34-bit
- 400dpi
- PowerScan 1616 ... £29.95
- PowerScan colour/RGB ... £99.95
- Scanner OCR software ... £20

## DVP PRODUCTS

- CAP HC-8 SCSI Int. ... £29.95
- CAP Card SCSI vs ... £49.95
- DOS 8 sound sampler ... £39.95
- 4MB RAM module ... £29.95
- 16MB RAM module ... £29.95
- A1200 SCSI Interface ... £29.95

## MODEM BUNDLES

- ISA Modem and cables
- Net and Web software
- Browse software
- One month free with Demos
- Modem Bundle 1 ... £29.95

- Inc. Whigpet serial interface for A200/1200
- Modem Bundle 2 ... £119.95

- Inc. Squi Squid SCSI-2 serial interface for A1200 PCMCIA
- Modem Bundle 3 ... £169.95

## 3.5" HARD DRIVES

- Complete with 2.5" HD cable
- Initial Software, Formatting
- Partitioned and Formatted
- For the A1200 Computer
- 1.1GB Hard Drive ... £75.95
- 1.4GB Hard Drive ... £149.95
- 2.1GB Hard Drive ... £189.95

## EPSON PRINTERS

- Includes Turbo Print II. 5i cable
- Ignis 400 1440dpi col £25.95
- Ignis 800 1440dpi col £29.95
- Turbo Print 6 ... £29.95
- Turbo Print 18 ... £25.95

## GATEWELL M2

- A4000/1200 High-density bit controller
- Allows you to connect any PC drive
- Gateway M2 (Zero) ... £49
- PC Happy Drive ... £20

## IG EXTENDER 161

- 41 x high speed serial
- Power Port Junior ... £29
- 1 x parallel, 2 x serial
- Power Port Plus ... £69
- 2 x parallel, 1 x serial
- Power Port 23 ... £44
- A2000/4000 only Serial 1/0

## AMIGA 3.100

- 1616, 80M chip, software and manual
- A1200/3000 3.100 ... £85
- A500/600/3000 3.100 ... £85
- A4000 3.100 ... £45
- A500/600/3000 3.1 chip £25
- A1200/4000 3.1 chip ... £25

## A4000 KEYBOARD

- Original keyboard and mouse
- Interface allows you to use any PC keyboard
- Keyboard & Interface ... £49

**£49.95**

PHONE FAX 01234 855400

01234 851500

POWER COMPUTING LTD

UNIT 82A SINGER WAY

BEMPSTON MK42 7PU



**Power Tower 1**

- Includes 280-watt PSU
  - PC Keyboard
  - PC Keyboard Interface
  - Floppy Drive (incl. Floppy cable)
  - All screws, port labels and leads
- Power Tower 1 ..... £129.95

**Power Tower 2**

- Power Tower and keyboard
  - AT286 main board
  - 1200 33MHz, 64MB RAM, 30MHz EPC accelerator card
  - Floppy disk drive
  - 3.5" Hardwires
  - 3.5" Manuals
  - Wordworth 4.5SE
  - TurboCAD 3.5 Spreadsheet
  - Database 1.1 Database
  - Photogenix 1.2SE
  - Personal Paint 4.0/Organizer 1.1
  - Personal Maria/Magic games
- Power Tower 2 ..... £399.95

**Power Tower 3**

- Power Tower and keyboard
  - AT286 main board
  - 1200 40MHz - 16MB RAM accelerator card
  - 24x IDE CD-ROM
  - 2.1GB hard drive
  - 4-way IDE interface/IDE fix kit
  - Floppy disk drive
  - 3.5" Hardwires
  - 3.5" Manuals
  - Wordworth 4.5SE
  - TurboCAD 3.5 Spreadsheet
  - Database 1.1 Database
  - Photogenix 1.2SE
  - Personal Paint 4.0/Organizer 1.1
  - Personal Maria/Magic games
- Power Tower 3 ..... £629.95
- As above but with 12MB 40MB RAM accelerator card add ..... £149.95



Plus CD-ROM drives for the Power Tower

**PANASONIC LE120**

- 120MB Floppy drive
  - Cable, IDE fix kit, 120MB disk
  - 4-Way IDE buffered interface
- LE120 External ..... £189.95
- LE120 Internal ..... £129.95
- LE120 Internal no IDE ..... £95.95
- LE120 Disk ..... £12.95

**10MB ZIP DRIVE**

- Internal ZIP Drive
  - Cable, IDE fix kit
  - Power ZIP Tools
  - 100MB Zip disk
  - 4-Way IDE buffered interface
- Internal Zip Drive ..... £149.95
- External Zip Drive ..... £169.95

**NEW IDE FIX**

- 4-Way IDE Buffered Interface
  - IDE Fix Kit Software
  - Fully Registered
- Interface/IDE Fix ..... £26.95
- Interface/40MB IDE Fix £23.95

**IDE CABLES**

- 13" Cable
- 1.5" 3-Way 40-pin IDE Cable ..... £9.95

**INT. SCSI ADAPTER**

- For the Power Tower
  - Suitable for ext. connection
  - Up to 7-devices internal
  - Fits Viper II/III or any other SCSI device for int. connection
- Int. SCSI adapter ..... £19.95

**POWER TOWER ACCESSORIES**

- Extra (Please call for information) ..... £CML
- Extra kit (Please call for information) ..... £CML
- PCMCIA V adapter (allows expansion to be fitted internally) ..... £79.95
- External audio port (for internal CD-ROM) ..... £25.95
- SCSI adapter (internal 16-way pin header, ext. 25-way) ..... £39.95
- SCSI II (pin-to-high density connector, int. 50-way header)
- external micro HD connector) ..... £25.95
- SCSI III (16-way cable cable int. connector, ext. micro HD) ..... £45.95
- SCSI III (7-way connector) ..... £29.95
- SCSI III Terminator ..... £29.95
- 3-Way IDE ribbon cable (suitable for HDs, CD-ROMs) ..... £9.95
- 3-Way SCSI 50-pin header (for HDs, SCSI CD-ROMs) ..... £15.95
- PC Keyboard Interface (works with any PC/Amiga keyboard) £29.95
- Printer switches - in stock ..... £3.00
- 25 Watt Speaker (inc. adaptor cable) ..... £19.95
- 350 Watt Speakers (inc. adaptor cable) ..... £49.95
- 300 Watt Subwoofer (inc. control box) ..... £29.95

**AMIGA MAGIC PACK**

- AT286 25MB 020 14.3MHz
  - AGA Chipset
  - Software
- Amiga Magic Pack ..... £179.95

**AMIGA BUNDLE**

- Amiga 1200 Magic Pack
  - 4MB RAM Card included
- Amiga Bundle ..... £239.95

**HARD DRIVES**

- Inc. cable and software
- 3.5" 3.5GB ..... £119.95
- 3.5" 1.2GB ..... £109.95
- 3.5" 4.5GB ..... £169.95
- 3.5" HD Stack Cable ..... £12.95
- Ideal for the Power Tower

PHONE FAX 01234 855400

01234 851500

POWER COMPUTING LTD

UNIT 82A SINGER WAY  
KEMPSTON MK42 7PU





## APOLLO 68030

- 12800 4MB/50-100MHz
- Up to 4MB RAM
- FPU optional
- Base ..... £169.95
- Inc. FPU ..... £199.95

## APOLLO 68040

- A1200 68040 Accelerator
- Apollo 1240 28MHz ..... £129.95
- Apollo 1240 40MHz ..... £189.95

## Viper MK 2

- A1200 68040 40MHz
- Full RAM
- Viper MK2 Base ..... £79.95
- Viper MK2 8MB ..... £99.95
- Viper MK2 16MB ..... £104.95
- Viper MK2 32MB ..... £119.95
- Viper MK2 64MB ..... £159.95

## VIPER 5200D

- 8MB Accelerator Card
- 68020/3C 11MHz without MMU
- PGA FPU Socket 11MHz Only
- Space for IDE 1.5" Hard Drive
- 2 x 40-Pin CD-ROM/HDD Sockets
- 8MB RAM On-board
- 3.0 ROM Inc. software
- Rat Agrees slot to fit mini-chip
- Viper 5200 ..... £79.95

## MEMORY BANKS

- 4MB 72-pin SIMM ..... £5.95
- 8MB 72-pin SIMM ..... £75.80
- 16MB 72-pin SIMM ..... £25.80
- 32MB 72-pin SIMM ..... £40.80
- 32MB Single side 168-pin DIMM ..... £95



## APOLLO 68060

- A1200 68060 Accelerator
- Apollo 1240 33MHz £249.95
- Apollo 1240 40MHz £319.95
- 66MHz is stocked up



## 1230 Turbo LD

- Not PC/MCA friendly
- 100% buffered compatible
- 33MHz Inc. 33MHz FPU
- Compatible with IDE CD-ROM
- 1230 Turbo 4MB ..... £34.95
- 1230 Turbo 8MB ..... £49.95

## BLIZZARD 603c

- A1200 PowerPC Card
- 603c PowerPC with 68K CPU
- No SCSI, cannot be upgraded
- Up to 128MB RAM
- 160MHz with 68040/25 ..... £249.95
- 160MHz with 68040/50 ..... £469.95
- 200MHz with 68040/25 ..... £299.95
- 200MHz with 68040/50 ..... £519.95
- 240MHz with 68040/25 ..... £339.95
- 240MHz with 68040/50 ..... £559.95

## BLIZZARD 603c+

- Same spec as above
- Includes DMA SCSI-2 interface
- 160MHz with 68040/25 ..... £299.95
- 160MHz with 68040/50 ..... £519.95
- 200MHz with 68040/25 ..... £329.95
- 200MHz with 68040/50 ..... £549.95
- 240MHz with 68040/25 ..... £369.95
- 240MHz with 68040/50 ..... £589.95

## CYBERBYRON PPC

- A386/4008T) PowerPC Card
- 604c PowerPC with 68K CPU
- Up to 32MB RAM (1 x 16MB)
- 200MHz with 68040/25 ..... £379.95
- 200MHz with 68040/50 ..... £779.95
- 250MHz with 68040/25 ..... £529.95
- 250MHz with 68040/50 ..... £929.95

## VIPER 630

- 8MB Accelerator Card
- 68030 11MHz Processor
- Up to 32MB RAM (1 x 16MB)
- FPU Included, PC/MCA friendly
- A600 4MB 10MHz ..... £75.95
- A600 4MB 16MHz ..... £85.95
- A600 8MB 10MHz ..... £94.95
- A600 16MB 33MHz ..... £115.95
- A600 32MB 33MHz ..... £150.95

## A1200 4MB RAM

- 68K only not upgradeable
- A1200 4MB RAM ..... £39.95
- 40MHz FPU ..... £75.80

## A1200 64MB RAM

- 4MB RAM ..... £25.80
- 8MB RAM ..... £25.80
- 64MHz FPU ..... £55.80

## RAM UPGRADER

- CCPY 32MB RAM ..... £49.95
- A600 32MB RAM ..... £49.95



## SPECIAL OFFER

Blizzard PPC for  
Blizzard 603c/603c+  
4MB 32MB RAM ..... £249.95

Cybertron PPC for  
Cybertron PPC  
8MB RAM ..... £299.95

## SPECIAL OFFER

Special FPU prices when  
purchased with any  
accelerator card

30MHz (PLCC) ..... £5  
33MHz (PLCC) ..... £11  
40MHz (PGA) ..... £26  
60MHz (PGA) ..... £28

## SPECIAL OFFER: POWER FRAMES

## Monitor Bundles



Internal Scanmag for £49.95  
when you buy a 14", 15" or 17" monitor.  
Scanmag with internal flicker fixer £79.95

EXTERNAL  
SCANMAG  
£99.95



## ADD MONITORS

- 3 year on-site warranty
- 14" Digital ..... £79.95
- 15" Digital ..... £129.95
- 17" Digital ..... £149.95

## AMIBA MONITOR

- Official 180Hz Inc. speakers
- 180Hz Amiga Monitor ..... £119.95  
(Monitor not shown)





## CD-ROM FROM £49.95



### IDE CD-ROM

- For All 486/586, 486 or 586
- 40x40x40 buffered interface - 40x40x40
- Chariot Engine\*
- Ocean/Taggart CD-ROM\*
- Power Supply Unit\*

24x Internal .....	£49.95
24x External .....	£59.95
12x Internal .....	£54.95
12x External .....	£69.95

\*Only comes with Internal CD-ROM drive. Internal drive is also suitable for the Power Flyer system - requires 40x40x40 and 40x40x40



## CD-ROM BUNDLES

- External CD-ROM Drive
- Squared PCMCIA SCSI Interface
- Chariot Engine CD-ROM\*
- Ocean/Taggart CD-ROM\*

24x External CD-ROM ... £169.95  
12x External CD-ROM ... £189.95

## 24x CD-ROM £169.95

### INT. SCSI CD-ROM

24x Internal CD-ROM ... £69.95  
12x Internal CD-ROM ... £79.95  
CD-ROM comes with 1 meg SCSI cable

## 24x INT. SCSI CD £99.95



## SCSI CD-ROM £79.95

### SCSI CD-ROM

- Squared PCMCIA SCSI Interface
- External Power Supply Unit
- Chariot Engine CD-ROM\*
- Ocean/Taggart CD-ROM\*

## New CD-R "Twin Box"

### FREE MAKE-CD SOFTWARE & 3 BLANK CD'S IDE INTERFACE



Create back-ups, build your own music CD's or even make a backup of any other CD.



A convenient "Twin Box" designed to give you the flexibility to choose a CD-R writer with either a 12x CD-ROM or a built in Hard Disk. What's more, you can pay a little extra and swap the IDE buffered interface with the award winning Power Flyer!

Any size Hard Disk (FDD)  
Power Flyer instead of IDE interface £29.95

## CD-R WITH 5.25MB FDD £429.95

## CD-R WITH 12x CD-ROM £389.95

### FREE MAKE-CD SOFTWARE & 3 BLANK CD'S IDE INTERFACE



### CD-R WRITER

- 5x Read, 2x Write
- Int. Make-CD Software
- 3 Blank CD-Roms
- External Case

with external case

## CD-R WRITER 1 £299.95

"...no matter what A1,200 you might have, this is probably the most significant hardware release of the year"

98% Amiga Format on the Power Flyer

## POWER FLYER £69.95

## WITH POWER FLYER CD-R WRITER 2 £359.95

## MAIL ORDER FORM

Name ..... ADDRESS .....  
POSTCODE ..... TEL No. ....  
EMAIL .....  
TOTAL (INC DELIVERY) £ ..... CREDIT CARD No. ....  
SIGNATURE ..... SUPPLY (SEEK) No. ....  
DELIVERY (see enclosed leaflet) 2-3 DAY £1.95 ☐ NEXT DAY £8 ☐ SAT £15 ☐ Northern Ireland £15 ☐ Monday & Tuesday £8.00 ☐ UK ONLY

PHONE FAX 01234 855400

01234 851500

POWER COMPUTING LTD  
UNIT 82A SINGER WAY  
KEMPSTON MK42 7PU



POWER COMPUTING

sales@powerc.demon.co.uk



## THE NEW POWER FLYER

Power flies back again with a faster 1.024 Controller for the Amiga 1200. If you have recently bought a Hard Drive and you've probably realised that it is slower on your Amiga than on compatibles. Power can solve that problem, thanks to the Power Flyer, a software and hardware solution which completely replaces the IDE controller of your Amiga 1200.

In PRO-4 mode it is parallel to reach a maximum speed of 15.4Mbytes. Most drives will increase their transfer speed from 2.5MB/sec. to 15MB/sec.

Tested with most accelerator cards, we found that the best performance is achieved with Apollo cards. (Especially the 68050 68416 ones)



Amiga Format

"...this is probably the most significant hardware release of the year"

- Up-to 4 0-128 and ADMM devices can be connected
- Supports mode PROLO, PRO-3 and PRO-4 (A1200 standard controller supports PRO-0)
- Meets specifications for ATA-1 and FastATA-2

98%

Power Flyer  
**£69.95**

## POWER MOVIE

'The World of Amiga' show saw the launch of our most recent innovative product, Power Movie.

This product is a long awaited tool for any full-motion video editing. We anticipate that it will be popular with the developers of multimedia projects or videogames and whoever needs to put together thousands of frame-long 3D rendered animations with synchronised soundtrack/sound FX and is tired of playing the resulting animation in real time straight from a hard drive or CD-ROM. Each frame can be in 256 or 4096-A colours and have a different palette.

Power Computing is in the process of licensing PowerMovie according to its final use in order to keep its price down. Amiga enthusiasts will be able to buy the software with a cheaper licence for personal, strictly non-commercial use. Commercial usage requires a business licence for companies planning to use the software and the files it creates for commercial products (i.e. video games, Multimedia, Info-Points, etc.



POWER MOVIE PRODUCTION



Power Movie  
**£34.95**

Commercial Use  
**£TBA**

## SCANMAGIC FLICKERFIXER

A scan doubler works by doubling the vertical frequency of the video compatible Amiga modes (1580K, Hi, NTSC and RunES). The signal generated will then be displayed by any standard VGA monitor.

The more expensive flickerfixer adds extra features to the ScanMagic. It eliminates the flickering from all interlaced video compatible Amiga modes.

Nobody can stop you anywhere from buying a nice, inexpensive, 15 compatible monitor (check our prices and models, all sizes are available).

- Doubles the Vertical frequency of the Amiga PAL, NTSC and Eurocolor video modes
- Allows you to use any standard VGA monitor with your Amiga 1200 and 4000
- Fits extremely easy installation
- VGA Adapter included
- Pass through of all other modes

Internal ..... £34.95  
Internal Sec. Flicker Fixer ..... £99.95  
Scanmagic Flicker Fixer ..... £99.95  
Scanmagic External ..... £69.95  
VGA Adapter ..... £15.00



## POWER CAMERAS

Power VDC100 and VDC200 Digital Cameras

Olivier Roberts, of TVOP Editor's fame, is the author of the Power DC, the software for Power's Digital cameras.

VDC-100 Technical Specifications

- Image/Video: 256,000 pixel CCD (16-bit colour)
- Resolution: 320 x 240 (standard), 440 x 480 (high resolution)
- Memory: Stores up to 10 images (20 standard), 10 high or a mixture of both
- Real Time Video in Black & White (NTSC)
- Shutter Speed: 1/60 to 1/16000
- Focus Range: 18cm to infinity
- Power Supply: 4 AA 1.5V batteries, or DC Power adapter

VDC-200 Technical Specifications

- Image/Video: 400,000 pixel CCD (24-bit col)
- Resolution: 320 x 240 (standard), 440 x 480 (high resolution)
- 45mm Colour TFT LCD monitor

- Memory: 2MB, stores up to 10 images (standard mode)
- Compact: Built-in memory slot
- Built-in flash
- Real Time Video in colour (PAL)
- Shutter Speed: 1/60 to 1/16000
- Focus Range: 25mm to infinity



VDC100 Camera ..... £99  
VDC200 Camera ..... £199  
2MB Flash RAM (VDC200 only)  
400K Flash RAM (VDC100 only)  
SR Alkaline Batteries ..... £22

New software v1.2, existing owners send SAE for free upgrade

PHONE FAX 01234 855400

01234 851500

POWER COMPUTING LTD

UNIT B2A, SINGER WAY  
KEMPSTON MK42 7PU







# News

## CU Amiga Closes

**T**his is the last ever issue of CU Amiga. The decision to close the magazine was taken by its publishers (EMAP) in light of its recent financial performance. Declining sales have forced the magazine into a position from which it can no longer turn a profit in its current state, and understandably (EMAP) is not prepared to continue publishing a magazine which consistently loses money.

While it may have been possible to make major investment cuts in order to regain profitability, it was decided that the magazine would be laid to rest with dignity rather than starved of resources and run into the ground. With no obvious short-term prospects for growth in the Amiga market this would merely have been delaying the inevitable. While (EMAP) retains ownership of the magazine and its trademarks, there are no plans to resurrect the magazine in the near future.

The announcement of the closure was made on the Internet on August 17th, the same day that official UK magazine circulation figures were released for the first half of 1995 which show that CU Amiga is still the world's best selling Amiga magazine. Here is the FAQ document which was posted to the CU Amiga website:

### FAQ

#### Why is CU Amiga closing?

Because it is no longer making a profit and therefore cannot continue to be published.

#### How can the best selling Amiga magazine not make a profit when other smaller magazines manage to do so?

Smaller magazines have different publishing costs, different costs and different distribution schemes. Many are run at a slight loss or at break-even by dedicated people as extended hobbies. CU Amiga is published by a major magazine publishing company (EMAP), and as a Publisher Limited Company (PLC) EMAP must show its shareholders that it is making their money work, which means they cannot publish magazines that make a loss.

#### Why are costs not cut in order to save the magazine?

We feel it is better to leave on a high note than continually reduce the size of the magazine, remove the disk, reduce staff and investment in the title to keep in going regardless of quality.

#### Isn't there something you can do now?

We could reduce the magazine to a low quality pamphlet that was poorly researched and written but

then it wouldn't be worth the £4.50/£5.99 cover price.

#### Why isn't the staff all taken a year out?

Would you do the same?

#### Why have you told us no before the magazine would not close?

We never did that. We have always been honest and said that there would come a time if things did not pick up when the magazine would no longer be profitable. Everyone knew when that time would be. Only very recently did it become apparent that the time was now.

#### Is this a sign to get Amiga users to get PC?

No. CU Amiga's publisher has to be magazines anyway.

#### Will 'CU Amiga' be turned into 'CU PC'?

No.

#### I have a subscription, now do I get a refund or, better I will not get?

You will be sent a cheque refunding the difference.

#### Why isn't the magazine sold to a publisher who can make a profit from it?

Sell-offs would have to be made by any publisher that would compromise the magazine so that it would

no longer be the CU Amiga you currently know.

#### Will CU Amiga return when the new Super Amiga is released?

We hope so, although we cannot make any promises on that one. That decision will be in the hands of our final publisher (EMAP).

#### Can I take this opportunity to thank the team for their dedication to the magazine and the Amiga community?

Of course you can, thank you.

#### And what about us?

Well, there's always Amiga Format. Rick and Ben will look after you. We really are very sorry to have to leave you like this. We would all love to go on working on the magazine and then the future but it's just not possible. One way or another we'll be around when the Super Amiga arrives, even though it most likely won't be a class of '88 style revision of the whole team under the old banner.

#### So is it time to pack the Amiga away for good?

Not keep on keeping on, and we'll see you soon in happier times.



## Schindler Talks

Jeff Schindler, the General Manager of Amiga, Inc., broke his three month silence this week with a message posted on the Amiga, Inc. website.

Schindler talked about the delays affecting the planned announcement of Amiga's partners in Q3/00 and evangelized on behalf of the Amiga vision. He told the story of how he and his children tried to install an adventure game on their state-of-the-art PC one evening, but gave up in anger and disappointment.

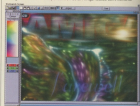
After only two or three of frustration, Schindler said:

"It really 'hurts' is... why the Amiga is different and why it's so important for us to reach our vision for the future Amiga and get it right. Thanks for your continued support and patience, you make Amiga right! It is. Remember, it's 'adventures' like this that keep Amiga in our hearts."

Amiga Inc.'s web-site can be found at <http://www.amiga.com/>

## PhotogenicsNG

Paul Nolan has announced the specifications of his new paint package Photogenics NG ahead of a major preview at the Computer '98 show in Cologne, although final release is dependent on other Amiga related commitments.



### Features include:

- User configurable GUI
  - Real time modification of colour, transparency, processing mode or position of any element.
  - Natural media tools such as airbrush, chalk, pencil, sponge, water-colour, smudge and smear.
  - First-on image processing allowing you to draw or brush on - or off - an effect.
  - Advanced layer support with fast erasing on right mouse button and unlimited number of layers.
  - First-on pyrotechnics such as fireballs, fire, and explosions.
- These can be combined with the linear tool to produce superstars, waves of fire, and even sunsets and waterfalls.
- Open Architecture:
- Photogenics is effectively just one big collection of plug-ins that blend seamlessly to form one program. 3rd party developers can have access to the same API as Photogenics does, allowing developers to extend the core software to an amazing degree. This also allows Photogenics technology to be embedded into other products.
- Fully Multi-threading:
- The GUI remains responsive while operations are in progress. Advanced Alpha channel support. Text Tool - allows text to be written straight onto any paint layer.

## C64 lives again

Web Computers International take 1990 computing to new heights with the announcement of their Commodore 64 Web it. The Web it is designed as an antidote to today's complex and expensive PCs, being a user-friendly console-sized computer designed to plug into your TV and be perfectly at home in the living room.

It will provide internet connectivity and have a suite of built-in software including MS-DOS 7, Windows 3.1, Netscape's Navigator, Lotus AmiPro, wordprocessors, Lotus 123, Lotus Organizer and a Commodore 64

emulator.

The Web-it is built around the AMD Elan microcontroller (a CPU derived from the 486) and has 100k of RAM, a 3.5" 1.44MB floppy disk, serial and parallel ports, an RF controller and an integral 96k footprint modem.

The C64 Web-it is planned for release at the end of September or will retail at under US\$400. Info: information is available from <http://www.webcomputers.net>

## Microsoft bites Intel?

The US Department of Justice antitrust case against Microsoft resumes on September 25th with new allegations of Microsoft applying unfair pressure on CPU giant Intel.

According to an internal memo written by an Intel employee, an August 1998 meeting saw Gates pressuring the chip manufacturer into developing a new series of multi-media extensions. The software, developed by Intel, was targeted by Gates for two reasons: a layer of OS independent code called Native Signal Processing and differences between the two companies' future development strategies.

Additionally, the Justice Department has collected evidence of OS-detecting code in the "Christmas tree" of Windows 3.1

which would show false error messages if it was run on anything other than Microsoft's own MS-DOS.

Confidential messages written by Microsoft employees between September '91 and February '92 suggested that the final release of Windows 3.1 should malfunction on purpose if it was run on non-proprietary operating systems such as Digital Research's "DR-DOS". In February '92, Vice President Brad Silverberg wrote in a memo: "The most sensitive thing from the development standpoint is to continue to build dependencies on MS-DOS into Windows." The federal courts must now decide whether or not the findings were put into practice, or just an example of Microsoft's "tough talk".

## Infomedia 98



Infomedia 98 is one of the largest computer shows in Europe. This year's event will be held at the Blaauwplein in Antwerp, Belgium on the 3rd and 4th of October and will feature two halls: one for PC and a separate hall dedicated to alternative platforms like Amiga, Mac and Linux. The 'alternative' hall is being organised by Westlands, the largest Amiga-only user group in Belgium, so will have a significant Amiga emphasis. Exhibitors planned for the show include Amiga International, Sansum Systems, Westlands themselves and the User Group Network.

Tickets may be purchased in advance for 250 BELF or 43.00 US. For more information on ticket availability, travel, accommodation or stand hire visit the Infomedia website at <http://user.online.be/~westlands/infomedia98/> or contact:

Boey Mees on tel. + 32 (0) 344 12 126









# Stateside News

by Jason Compton, Editor in Chief of Amiga Report Magazine

## And Then There Were Six?!?

One of Amiga Inc.'s first employees, fan favorite Joe Turek, has left the company. Turek, whose Amiga resume includes pioneering development of custom accelerator technology, Amiga animation for Hollywood films, a stint as president of the Amiga Atlanta user group, and a seemingly never-ending stream of "boiling hot levitator" overtones, was one of the first recognizable names to Amiga fans after Jeff Schneider began to build his South Dakota team. Turek has

been a mainstay of the Amiga Inc. trade show circuit, and will be missed by his friends around the world.

His official reasons were cited for Turek's departure, and he has not made any public statements since going on vacation in July (but it has been theorized that a hardware engineer was not a good fit with Amiga Inc.'s predominantly software focus). As of this writing, Amiga Inc. never has its acknowledged employees.

## Nova Design Releases ImageFX Update



Guys are the stuff of life, but Nova Design calls us to clean up after theirs. The latest update to the ImageFX, version 3.2, has been released. This revision cleans up some image format handling, augments the open layer capability, and enhances the built-in Affix and drawing tablet support.

For ImageFX 3.x users, the update is free. For 2.x users, you can use this opportunity to upgrade to US\$60 (about UKP20), and earlier users (including CD-i owners) can move to 1.2 for US\$125 (about UKP75). For more details, contact Nova Design at [www.novadesign.com](http://www.novadesign.com).

## Amiga Evangelist Tackles Fast Food



It's not likely a coincidence that the Amiga has attracted a fair number of people interested in campaigning for a cause, and it shouldn't be too surprising if some Amigans see our computer as just one of many causes they champion. That fish, who last made news going after Be

Inc.'s Jean-Louis Doreau over what he perceived to be a condescending attitude towards the Amiga a couple of years back, is hammering away at fast food giant Wendy's for false advertising. Apparently Fish discovered that Wendy's was being far less than hen-

zen about a product it promoted as vegetarian, and since being exposed has not necessarily taken the steps it promised to rectify the situation. Givenas TV came to interview Mr. Fish, who made very certain his suitcases were covered in Amiga merchandise and memorabilia.

## SoftSynth Frees JForth

Sometimes lost in all the excitement over Java and whatever new languages people can invent this week are the time-tested and proven languages that sometimes fall by the wayside because they don't make headline news. If you're interested in programming in Forth, a very powerful and scalable

language, your life has been made a lot easier by SoftSynth, who have released JForth as freeware. First released commercially in 1988 and maintained for the better part of a decade, you can now break in for no investment but your time. Check:

[www.softsynth.com/jforth](http://www.softsynth.com/jforth) for

downloading instructions. Although SoftSynth will not provide any technical support, a JForth support mailing list will. To subscribe, write to [td@dreamingcloudsolutions.com](mailto:td@dreamingcloudsolutions.com), or write "subscribe JForth" in the body of the message.

### Advertisers Index

Amiga International	16	00 00000000
Amiga	00	000 000 000
Amiga	00/00	000 000 000
Amiga	16	00 00000000
Amiga Publishing	16 00/00	000 000000
Amiga	16/16	0000 00000
Amiga Computer	00	000 000 000
Amiga Computer	00	000 000000
Amiga Group	16	000 000 000
Amiga	000	000 00000
Amiga Computer	00	0000 00000
Amiga Computer	00/00	0000 00000
Amiga	00	0000 00000
Amiga Computer	00/00	0000 00000
Amiga Computer	00	0000 00000
Amiga Computer	00	0000 00000



# See you in Cologne, Germany

The biggest event for the AMIGA and  
all AMIGA fans in the world!  
Come and see all new AMIGAS,  
peripherals, CD-ROMs, games,  
applications, and, and, and ...

Internet: <http://www.computer98.de>

13. - 15. November 1998

Cologne, Germany  
Exhibition Grounds  
Halls 11 + 12



**Organizer:**

PRO Concept GmbH  
Rennacker Straße 52  
D-40775 Barchem



Phone: +49/234/946 88-0  
Fax: +49/234/946 88-44  
Email: [service@computer98.de](mailto:service@computer98.de)



Marketing agreement to Europe International AG  
Marktstraße 118, D-52074 Cologne, Germany  
Tel: +49 (0)228/7679-80 [www.europe.de](http://www.europe.de)

Use our booking office:

We waiting at the ticket office but a separate entrance!

**Tickets for the computer '98**

_____ tickets for adults	at 25 DM	_____ DM
_____ tickets for children/students	at 25 DM	_____ DM
Please add for PGV		_____ DM
Total		_____ DM
Valid until 11. October 1998.		

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Address: \_\_\_\_\_  
Date, Sign: \_\_\_\_\_

Please send this order to:  
PRO Concept GmbH, Rennacker Straße 52, D-40775 Barchem



**computer '98**



# CD-ROM

## Super CD-ROM 27



Welcome to CUCD27. This CD is crammed full of programs, games, utilities, mods and a host of other goodies. If you don't yet have a CD drive, this is your reason to buy one. Prices have never been lower and 650MB of quality software each month is just too good to miss out on.

### How much of what?

Cinema4D	34MB	PowerPC	21MB
Quake2	63MB	Magazine	47MB
CDSupport	50MB	Online	14MB
System Files	13MB	Programming	11MB
CDInfo	18MB	Students	43MB
Games	61MB	Sound	64MB
Games	100MB	Utilities	26MB
Graphics	33MB	WWW	58MB

### Making the most of CUCD 27



If CUCDs are designed to be used whether you boot from the CD or your normal workstation, if you boot from the CD everything is setup and ready to go. If you want to access the CD from your workstation, you should first run **testCD**. This sets up various settings and paths needed by programs on the CD, so if you don't do it, things won't work. It doesn't make any changes to your system, or write any files to your hard drive, all changes are temporary and can be reversed by running **testCD** again. The error some people were experiencing with updatelibrary has been fixed here, and the fix works. But you won't see the error again, even with older CDs.

### Your own custom CD

In the past you had to use whatever file viewers we set up on the CD, since then had to work with all Amiga they were quite limited. From CUCD12 we decided to allow you to specify how the CD should work on your Amiga and included **CDprefs** in the **CDsupport** drawer. If you have never run this before you should be asked if you want to when you run **testCD**. **CDprefs** lets you specify which program you want to use to handle each type of file, graphics card drivers can view pictures in full 24 bit colour, **ProcedMG** users can listen to midi files through their midi card, people with sound cards can listen to music with an **AMF** module player and **PowerPC** users can use the fast file viewers and image players available for their machines. It also means we were able to provide different defaults for **Workbench 2x** users.

Once you have run **CDprefs**, your settings will be saved to your hard drive and will be used every time you use this CD or any other CUCD.

Some people had problems with the original use of **IGet**, partly through a lack of understanding of how it worked and partly through a lack of explanation from us. All from now you CUCDfile as their default tool, and the previous **IGet** problems should be a thing of the past. **testCD** now copies CUCDfile and it's configuration to your hard drive, if it's not already there. This means that files copied from the CD will now work without needing the CD present. You will almost certainly need to run CUCDprefs to set it up to use your own viewers, but you should do that anyway so it will result in faster access. If you do have any problems, make sure you have run **testCD**, at least once.





## Finding what you need

The CUCDs have long been equipped with basic search facilities for the CUCD and Amiga CD index files. Now there is a new SearchCD program that covers both CD sets from a single interface. You can select which type of CDs to search, and select individual CDs in all CDs for searching. A progress bar informs you of the status of the search so there's no more staring blankly at a busy pointer. This needs Workbench 3.x so the old search tools have been left on the CD for WB 2.x users.



## Making things work

Wherever possible, we have tried to make software work straight from the CD. This isn't always possible for a number of reasons. Some programs need to be installed to your hard drive to work, often requiring specific system files. These files are usually on the CD so running InstallCD often helps here.

Most software contains a list of system requirements in the Documentation, and some will not run unless you have the required processor, memory, operating system version or chipset. Some programs, particularly demos and games are written in an OS illegal way. This can mean they only work on specific machine specifications, sometimes the readme states this, but not always. Many demos are intended to be run from a shell, the icons are still simply start them from a script. In some cases this will not work, especially demos that need a lot of Chip RAM. In this case you will need to boot without startup sequence and run the program from the shell. Your Workbench manual should explain how to do this. ■

Neil Butterfield



## Highlights of this month's CU Amiga CD?

### WCP CUCD/Utilities/WCP

Customisation is a complete collection of icons, sounds and backdrops to enhance the appearance of your Workbench. The icons use the palette remapping system of Revolution but have their own, unique, style. A particular feature of the icon design is the way it highlights icons to leave you in no doubt as to which are selected.

### StarIQ CUCD/Online/StarIQ

IQ has become incredibly popular in a very short time, but there has been no StarIQ port. Now there are a few but StarIQ is the best, and the only one that doesn't require the

use of another computer for the initial setup.

### Wasted Dreams & EvilDoom CUCD/Games/Wasted Dreams & EvilDoom

Two exclusive demos that arrived just in time for the final CD.

### Amideck Graphics/Amideck

This is a prototype of a new multimedia program. The concept is to use a single interface to handle many types of data such as images, audio files and CD audio tracks.

### NewsReg CUCD/Online/NewsReg

By the demo of the new name web or, released this month.

### www.thule.no CUCD/WWW/http/www.thule.no

Dave Haynes has uploaded some documents from his days as a senior engineer at Commodore. This gives an intriguing insight into the workings of Commodore, some useful technical information and a glimpse of what might have been had the Amiga been managed differently, some of the files are scanned documents in pdf format, you can view these with xpdf in the C directory of the CD. These should have

been on last month's CD, but are definitely here this month.

### Putty Squad

A demo of Putty Squad arrived minutes before mastering the CD. It came as a G45 but I couldn't get it to run on my 4800850 with co-processor disabled. The G45 file is on the CD, you can upload it from a shell with: cd CUCD20; cdG45; write PuttySquad.DPO;

### PhatTrax CUCD/Sound/PhatTrax

Another collection of high quality samples for use in your own compositions.



# COVER DISKS

## Cinema4D



The original Cinema4D CD contains over 470 MB of data. We magically shoe-horned the package onto two floppies - but it's a drastically cut down version. If that isn't an incentive to buy a CD-ROM drive, what is?

Most notably the floppy disk version supplied requires an FPU to run - that is, you must own an 386 or 486 processor with an external FPU, or have an 486 or 686. A lot of the example features, objects, fonts, etc. had to be removed to even fit the program onto the disks. For more information on Cinema4D read the following pages.

### Installation and setup

To install Cinema4D, first boot up your Workbench. Insert disk #1 and double-click on its icon. (Drag the icon called "Drag Me To 100 and Click" to a temporary location on your hard drive. Alternatively, if you have about 4MB of free memory, you can drag it to your RAM drive instead. Double-click on this icon and the Cinema4D installer will be unpacked. About half way through you will be prompted to insert disk 101. When finished, update the window where you copied the icon and you will see a Cinema4D drawer. Or Open this. You can now launch the Cinema4D installer by double-clicking its icon - this will install the program to your hard disk. When asked which version you wish to install, make sure you select the FPU version.

**T**he Amiga seems to have reached saturation point with 3D packages, but Cinema4D is unique. Unlike other packages, Cinema4D uses the standard Amiga user interface. The result is a clean, easy to use program which leaves the others standing in terms of ease of use. Not that Cinema4D lacks features or rendering power as a result - far from it, as it's still one of the most useful and creative graphics programs you can use.

Cinema4D allows you to quickly create complex scenes, and then render them making full use of any extra hardware you may have invested in. Graphics cards, accelerators, FPU's - even 68000 processors are supported directly. This is one software application which will help push your hardware to the limits.



4 The six different Cinema4D viewport views are presented in the bottom control panel. The new display of camera options is also new.



4 Steps for use with the new camera buttons.

### The Toolbar

The Toolbar provides quick access to all the tools you will use to create and edit objects. Cinema4D makes a slight alteration to the standard user interface, so it's vital you notice that some buttons have a little triangle at the bottom. These buttons have extra functions: click on them with the right mouse button to see them. Some menu options have a dot after them - hold down the shift key while you select these to bring up a preferences window. Here are a list of key buttons and their purpose.

- Click here to alter the viewpoint of the entire scene.
- Click here to alter the position, size or rotation of an individual object.
- Click here to Rotate an object. You need to select the Axis around which to rotate.
- Click here to Scale an object. The default is to scale in all directions, but it's possible to select axes individually.

- Click here to Move an object. Drag with the left mouse button down for up/down - left/right. Drag with the right mouse button held down for in/out.
- Click on these buttons to determine the axis for scaling and rotating.
- Click here to cycle between an object's own axis and the main display axis when rotating or moving an object.



- Select a front view
- Select a side view
- Select a plan view
- Select a 3D view
- Select front, side, plan and 3D
- Select the camera (perspective) view



## Getting Started

When you start Cinema4D, you'll see a single window displaying a grid. This grid works as a base in any renders you make. It's only there to help you feel your bearings. As with all 3D programs, it's important that you grasp the concept of axes. The Y axis is the "up and down" direction, the X is the "left to right" and the Z is the "in and out" of the screen.

The cluster of six buttons at the bottom of the toolbar allows you to switch between one of six view points. Three view modes are "flat" (a two dimensional) view, but are 3D views and one is a mixture of both. You can swap between these modes at any time, so simply click the one which gives you the best view.

## Textures and Appearance

When you first create an object in Cinema4D it's bland and white by default. To make realistic renders you can alter the appearance by creating different "materials". When you're in the Render in Raytrace mode, you'll see the difference of color.

There are three ways of altering the appearance of an object, although all are brought together to create a single "Material".

1. You can adjust the object's physical attributes. These include color, transparency, Reflectivity and Luminance. For simple objects, such as a snooker ball, pane of glass or pool or water, this is how you would control their appearance.
2. You can map a texture to the object. For example, you can create a chequered floor by applying a tiling pattern, or create a picture in a frame by applying a scanned photograph as a texture. These textures are simply ordinary images such as those created by any Amiga art program.
3. You can create a "bump map". Again, this is an ordinary flat image, but this time the intensity of the image is used to create bumps in the object. This is a great way to add realism to objects. For example, adding craters to a planet, or dimples to an orange.

Applying a material to an object is easy. First of all, open the Materials Manager window from the Windows/ Material Manager menu option. This displays the currently available materials, which you can apply to your object. Load some more, by using the Material Load menu option. Cinema4D comes with a collection of Materials which you can use. You'll see them appear in the Manager window once they are loaded.



▲ The Materials Manager window lists all the textures you can apply to your objects.

To apply the material to your object, select it in the Materials Manager window. Then make sure your chosen object is highlighted, and click Apply from the Material menu. This will cause the chosen object to appear in renders as though it were covered in your material.

For final results, you will want

to edit the material so that it suits your exact needs. Cinema4D offers extensive control over the material: you can adjust the colour of



▲ Right now materials in objects to make them more interesting.

course, but also the physical attributes to make an object appear hard, soft, shiny or transparent. You can also load in your own textures (Standard IFF images) and even make them "bumpy".

All this is possible by editing the material, and to do this you only need to double-click in the material in the Materials Manager window. If you don't want to alter an existing material, create a new one first using the Material/New menu option.

Julian Kennedy

More Cinema4D on Page 323

## Creating a simple scene

It's only you get to play with Cinema4D, here's a short step-by-step guide to creating and positioning an object. Refer to the Toolbar buttons key to learn how to control the various options on and off.

First is a new object, and select "Box" from the Object / Create menu as this creates a new object. Cinema4D defaults to the 3D view, with the "Move" button active on the screen and the left mouse button Active option.



Hold down the left mouse button and drag the mouse, and you can move

the entire grid (including the object) left and right, up and down. Hold down the right mouse button and the display rotates in and out. Zoom out far enough and the camera appears in the scene.



Now click on the Rotate button (indicated) and by clicking and dragging again, this time you can rotate the view around in order to get a better view. You can rotate the view in this way from the 3D view, but only move in the flat view.



It's possible to deal with individual objects - rather than the entire scene - in the same way. Click on the Edit Object button beneath the top button and then on the Move controls. Now you can drag objects around the screen in any view you like. Toggle the X, Y and Z buttons and movement is limited in the direction of the object's axis.



You can rotate an object in the same way, and this time the X, Y and Z buttons determine around which axis the poor object is to be spun. Remember, it's going to spin around the internal axis of the object, unless you click on the axis gadget and pick "World".



The P view is the view from the camera, so when you render the scene this the view point which will be used. Try it now: the Pan button is the toolbar button which loads the a piece of film, click it and select a render mode such as Mono chrome shaded to see your stage.

**88 BOUWCENTRUM  
ANTWERP - BELGIUM  
3rd - 4th October 98  
10 - 18 h HALL 2-3**



**INTERNATIONAL  
COMPUTERSHOW**

info:++ 32 3 744 13 19

<http://titon.glo.be/woosland/infomedia98>



HiSoft Systems

in conjunction with *CU Amiga magazine*  
presents a very special offer...

# CINEMA 4D

SE  
XL

FOR POWERMAC AND WINDOWS PLATFORMS

starring...

a massive saving of £390

co-starring...

blistering render speeds

with...

more features than you can  
shake a clapperboard at

*If you own a Mac or PC as well as your Amiga, then this is your lucky day.*

For a limited period we are offering all readers of *CU Amiga* the chance to buy the Power Mac or PC version of CINEMA 4D at a greatly reduced price. On the Mac/PC platform there are two editions of CINEMA 4D: SE (standard edition) and XL, which has additional, high-end features. Normally these packages cost £129 and £169 respectively.

But if you order before November 31st you can buy either of these packages at a fraction of these prices:

CINEMA 4D SE (4-6 users) ... £129  
CINEMA 4D XL (4-6 users) ... £169

No strings, no hidden extras, these are the full and complete packages, including printed reference and tutorial manuals.

Notwithstanding the exceptional capabilities of the Amiga, the Mac/PC versions of CINEMA 4D are vastly more powerful than the Amiga version. The difference in rendering speed alone is guaranteed to blow your socks off—what even an 860-based Amiga will take a few hours to render, CINEMA 4D on the Mac/PC will render in just a few minutes. We told you not—CINEMA 4D has been hailed by people the world over as the fastest raytracer on both the Macintosh and PC platforms.

On top of this there are *unseen* additional features that make modelling and animating so easy and such a pleasure that after just one session with the Mac/PC version you'll wonder how you ever did without it.

To order CINEMA 4D at this very special price simply call **PHOSOT SYSTEMS** on:

**FREECALL 0800 213 660**

To learn more about either package before ordering, please ask for our free, no-obligation information pack, which we will dispatch to you immediately.

But remember, to take advantage of this very special offer you must order your copy of CINEMA 4D before November 31st.

Just think, if you order today, tomorrow you could be experiencing the stunning power of CINEMA 4D SE for just £129.

PHOSOT SYSTEMS LTD  
PO BOX 117070  
The Old London  
Greenfield  
Bedford MK43 00E  
United Kingdom

Tel: +44 (0) 1525 710101  
Fax: +44 (0) 1525 710110

Web: [www.hisoft.co.uk](http://www.hisoft.co.uk)







▲ You can set materials from inside an edit window now.

## Rendering Modes

Whenever possible, Cinema4D always renders images with 24-bit colours. This means that there could potentially be over 16 million colours present in the rendered scene. Unfortunately, unless your image is tiled with a graphics card, it's not possible to display these wonderful 24-bit images directly, although it's possible to get pretty close if you have an AGX Amiga. Cinema4D has six rendering modes, each one producing more detail than the last. You select the one you want by clicking on the Render button in the main tool palette.

### 1. Monochrome Wireframe



This mode is perfect for testing animations. Objects are rendered only in black-and-white outline form. This is the fastest rendering mode available.

### 2. Wireframe



Similar to the monochrome mode, except different colours are used for the outlines, depending on the colour of the object. This can help when producing a complete scene.

### 3. Monochrome Shaded



One step up from the wireframe, and now objects are "filled in" and look more solid. Still fast, and a good way to preview any animations.

### 4. Colour Shaded



With this mode, you start to get a feel for the finished image. However, there will be no transparency, reflections or shadows.

### 5. Scanline



The first rendering mode capable of generating 24-bit graphics, and in many cases, good enough for finished images. Colours and textures are rendered properly, and round objects appear smoothed.

### 6. Ray Trace



This is the most accurate (and slowest) rendering mode. It uses a physical model of how light behaves to create shadows, as well as complicated reflection and refraction effects.

## There's more!

Cinema4D is such a powerful program that we have barely begun to scratch the surface of what it's possible to achieve with it. There are powerful animation tools, point and surface editing, landscape generation and text options. Although for obvious reasons we won't be able to bring you a monthly tutorial series on using Cinema4D, you'll be pleased to know that Amiga Format will be including some tips and tricks in future issues.

## Extras

Getting the lighting can always be a chore when rendering a scene. With Cinema4D you can create as many light sources as you want, and scatter them around your scene to provide illumination. Shadows can be calculated when Raytrace mode is used, and these will provide an incredible degree of realism to your work. However, the easiest way to get started is to select Sun from the Objects/Special Objects menu. This quickly provides a yellow-y lightsource high in the sky to provide your scene with illumination. You can always go back later and change it if you need more control.

The Object bar (Windows/Object Bar) provides useful shortcuts to get to important tools. Leave this window floating on your desktop and you'll speed up editing of complicated scenes.

► Instead of using all eight icons on the Object Bar, you can use the Object Bar to create your own custom icons.

### Expansions

(extra CAD tools)

Primitives

Polygon object

Ground object



◀ Boolean operations

◀ Create polygon

◀ Special objects

◀ Sky object

When creating 3D scenes, it's often desirable to have a human being present to provide a sense of scale. This is especially true if you are designing a building, room, car or weather "real world" object. CAD makes it easy to add a human being by doing all the hard work for you - you only need to select Object/Special Objects/Figure.

What's more, it's very easy to pose the figure because it has been already defined as an "Animation-ready" object. When you select the Drag function in the main toolbar (the third arrow button) you can easily rotate the figure in a realistic way. Select the arm joint, and the entire arm including the hand will move. Select the torso, and the head, chest and arms will all move as well.



► The 3D being featured on page four of this magazine.





The version of Cinema 4D installed on this machine, C4D5 is the full v4, the latest - and unfortunately the last - version available for the Amiga. It includes the CinemaWorld and CinemaPaint add-ons, examples and so on. There is plenty more that you might need, however, so HiSoft have put together a range of special offers to make your life easier.

First of all, you can purchase the Cinema 4Dv4 CD itself. You might think that this is a savings thing to suggest, but the fact is that there are quite a lot of extras on the CD. The Cinema 4D CD has almost 300MB in total on it. Obviously we did not want to put all the extras on

our cover CD or there wouldn't have been room for anything else. If you want all the extra textures, scenes, objects and example animations, you'll find C5 a very fair price to pay! For purchasers of the floppy disc edition, you'll find that there is quite a few little bits we had to chop out to make it fit on the disc. The CD edition contains far, far more.

To get the most out of your rendering, you'll need to know the ins and outs of the package. You can buy a full manual for £15 or if you have an older version of Cinema 4D with the manual, you can get the v4 manual addendum for £10.

There are also offers on the LightROM CD-ROM series for peo-

ple who want to expand their collection of objects for use in Cinema 4D. The LightROM is a highly rated collection which contains a wealth of objects for you to use or abuse in your own work. There are many sample images showing you what the objects are like. The LightROM CDs concentrate mostly on Lightwave objects but these can be

converted to Cinema 4D format with the MagicLink program included in the coverset. They also include large collections of textures and image maps.

Finally, a couple of small extras. Personal Paint for drawing your own textures, and CD-ROM drive if you need one to get the CDs running.

# HiSOFT

SYSTEMS

## CINEMA 4D

Fill in this form and pop it with a cheque or postal order to:

HiSoft Systems,  
The Old School,  
Greenfield,  
Bedford,  
MK45 5DE,  
United Kingdom.

Credit Card orders can be accepted using Visa, Mastercard or American Express. Switch and Debit card orders also accepted.

For credit card orders, call 0900 320 000 or +44 20 825 1100.

Please note that all these special upgrade offers expire 30/10/99.

Tick here to receive information about the PC versions of Cinema 4D.

Tick here to receive information about the MAC versions of Cinema 4D.

# HiSOFT

SYSTEMS

The Cinema 4D version mentioned will be as follows: (1) 4D v4, (2) C5, (3) C4D v4, (4) C4D v5, (5) C4D v6, (6) C4D v7, (7) C4D v8, (8) C4D v9, (9) C4D v10, (10) C4D v11, (11) C4D v12, (12) C4D v13, (13) C4D v14, (14) C4D v15, (15) C4D v16, (16) C4D v17, (17) C4D v18, (18) C4D v19, (19) C4D v20, (20) C4D v21, (21) C4D v22, (22) C4D v23, (23) C4D v24, (24) C4D v25, (25) C4D v26, (26) C4D v27, (27) C4D v28, (28) C4D v29, (29) C4D v30, (30) C4D v31, (31) C4D v32, (32) C4D v33, (33) C4D v34, (34) C4D v35, (35) C4D v36, (36) C4D v37, (37) C4D v38, (38) C4D v39, (39) C4D v40, (40) C4D v41, (41) C4D v42, (42) C4D v43, (43) C4D v44, (44) C4D v45, (45) C4D v46, (46) C4D v47, (47) C4D v48, (48) C4D v49, (49) C4D v50, (50) C4D v51, (51) C4D v52, (52) C4D v53, (53) C4D v54, (54) C4D v55, (55) C4D v56, (56) C4D v57, (57) C4D v58, (58) C4D v59, (59) C4D v60, (60) C4D v61, (61) C4D v62, (62) C4D v63, (63) C4D v64, (64) C4D v65, (65) C4D v66, (66) C4D v67, (67) C4D v68, (68) C4D v69, (69) C4D v70, (70) C4D v71, (71) C4D v72, (72) C4D v73, (73) C4D v74, (74) C4D v75, (75) C4D v76, (76) C4D v77, (77) C4D v78, (78) C4D v79, (79) C4D v80, (80) C4D v81, (81) C4D v82, (82) C4D v83, (83) C4D v84, (84) C4D v85, (85) C4D v86, (86) C4D v87, (87) C4D v88, (88) C4D v89, (89) C4D v90, (90) C4D v91, (91) C4D v92, (92) C4D v93, (93) C4D v94, (94) C4D v95, (95) C4D v96, (96) C4D v97, (97) C4D v98, (98) C4D v99, (99) C4D v100, (100) C4D v101, (101) C4D v102, (102) C4D v103, (103) C4D v104, (104) C4D v105, (105) C4D v106, (106) C4D v107, (107) C4D v108, (108) C4D v109, (109) C4D v110, (110) C4D v111, (111) C4D v112, (112) C4D v113, (113) C4D v114, (114) C4D v115, (115) C4D v116, (116) C4D v117, (117) C4D v118, (118) C4D v119, (119) C4D v120, (120) C4D v121, (121) C4D v122, (122) C4D v123, (123) C4D v124, (124) C4D v125, (125) C4D v126, (126) C4D v127, (127) C4D v128, (128) C4D v129, (129) C4D v130, (130) C4D v131, (131) C4D v132, (132) C4D v133, (133) C4D v134, (134) C4D v135, (135) C4D v136, (136) C4D v137, (137) C4D v138, (138) C4D v139, (139) C4D v140, (140) C4D v141, (141) C4D v142, (142) C4D v143, (143) C4D v144, (144) C4D v145, (145) C4D v146, (146) C4D v147, (147) C4D v148, (148) C4D v149, (149) C4D v150, (150) C4D v151, (151) C4D v152, (152) C4D v153, (153) C4D v154, (154) C4D v155, (155) C4D v156, (156) C4D v157, (157) C4D v158, (158) C4D v159, (159) C4D v160, (160) C4D v161, (161) C4D v162, (162) C4D v163, (163) C4D v164, (164) C4D v165, (165) C4D v166, (166) C4D v167, (167) C4D v168, (168) C4D v169, (169) C4D v170, (170) C4D v171, (171) C4D v172, (172) C4D v173, (173) C4D v174, (174) C4D v175, (175) C4D v176, (176) C4D v177, (177) C4D v178, (178) C4D v179, (179) C4D v180, (180) C4D v181, (181) C4D v182, (182) C4D v183, (183) C4D v184, (184) C4D v185, (185) C4D v186, (186) C4D v187, (187) C4D v188, (188) C4D v189, (189) C4D v190, (190) C4D v191, (191) C4D v192, (192) C4D v193, (193) C4D v194, (194) C4D v195, (195) C4D v196, (196) C4D v197, (197) C4D v198, (198) C4D v199, (199) C4D v200, (200) C4D v201, (201) C4D v202, (202) C4D v203, (203) C4D v204, (204) C4D v205, (205) C4D v206, (206) C4D v207, (207) C4D v208, (208) C4D v209, (209) C4D v210, (210) C4D v211, (211) C4D v212, (212) C4D v213, (213) C4D v214, (214) C4D v215, (215) C4D v216, (216) C4D v217, (217) C4D v218, (218) C4D v219, (219) C4D v220, (220) C4D v221, (221) C4D v222, (222) C4D v223, (223) C4D v224, (224) C4D v225, (225) C4D v226, (226) C4D v227, (227) C4D v228, (228) C4D v229, (229) C4D v230, (230) C4D v231, (231) C4D v232, (232) C4D v233, (233) C4D v234, (234) C4D v235, (235) C4D v236, (236) C4D v237, (237) C4D v238, (238) C4D v239, (239) C4D v240, (240) C4D v241, (241) C4D v242, (242) C4D v243, (243) C4D v244, (244) C4D v245, (245) C4D v246, (246) C4D v247, (247) C4D v248, (248) C4D v249, (249) C4D v250, (250) C4D v251, (251) C4D v252, (252) C4D v253, (253) C4D v254, (254) C4D v255, (255) C4D v256, (256) C4D v257, (257) C4D v258, (258) C4D v259, (259) C4D v260, (260) C4D v261, (261) C4D v262, (262) C4D v263, (263) C4D v264, (264) C4D v265, (265) C4D v266, (266) C4D v267, (267) C4D v268, (268) C4D v269, (269) C4D v270, (270) C4D v271, (271) C4D v272, (272) C4D v273, (273) C4D v274, (274) C4D v275, (275) C4D v276, (276) C4D v277, (277) C4D v278, (278) C4D v279, (279) C4D v280, (280) C4D v281, (281) C4D v282, (282) C4D v283, (283) C4D v284, (284) C4D v285, (285) C4D v286, (286) C4D v287, (287) C4D v288, (288) C4D v289, (289) C4D v290, (290) C4D v291, (291) C4D v292, (292) C4D v293, (293) C4D v294, (294) C4D v295, (295) C4D v296, (296) C4D v297, (297) C4D v298, (298) C4D v299, (299) C4D v300, (300) C4D v301, (301) C4D v302, (302) C4D v303, (303) C4D v304, (304) C4D v305, (305) C4D v306, (306) C4D v307, (307) C4D v308, (308) C4D v309, (309) C4D v310, (310) C4D v311, (311) C4D v312, (312) C4D v313, (313) C4D v314, (314) C4D v315, (315) C4D v316, (316) C4D v317, (317) C4D v318, (318) C4D v319, (319) C4D v320, (320) C4D v321, (321) C4D v322, (322) C4D v323, (323) C4D v324, (324) C4D v325, (325) C4D v326, (326) C4D v327, (327) C4D v328, (328) C4D v329, (329) C4D v330, (330) C4D v331, (331) C4D v332, (332) C4D v333, (333) C4D v334, (334) C4D v335, (335) C4D v336, (336) C4D v337, (337) C4D v338, (338) C4D v339, (339) C4D v340, (340) C4D v341, (341) C4D v342, (342) C4D v343, (343) C4D v344, (344) C4D v345, (345) C4D v346, (346) C4D v347, (347) C4D v348, (348) C4D v349, (349) C4D v350, (350) C4D v351, (351) C4D v352, (352) C4D v353, (353) C4D v354, (354) C4D v355, (355) C4D v356, (356) C4D v357, (357) C4D v358, (358) C4D v359, (359) C4D v360, (360) C4D v361, (361) C4D v362, (362) C4D v363, (363) C4D v364, (364) C4D v365, (365) C4D v366, (366) C4D v367, (367) C4D v368, (368) C4D v369, (369) C4D v370, (370) C4D v371, (371) C4D v372, (372) C4D v373, (373) C4D v374, (374) C4D v375, (375) C4D v376, (376) C4D v377, (377) C4D v378, (378) C4D v379, (379) C4D v380, (380) C4D v381, (381) C4D v382, (382) C4D v383, (383) C4D v384, (384) C4D v385, (385) C4D v386, (386) C4D v387, (387) C4D v388, (388) C4D v389, (389) C4D v390, (390) C4D v391, (391) C4D v392, (392) C4D v393, (393) C4D v394, (394) C4D v395, (395) C4D v396, (396) C4D v397, (397) C4D v398, (398) C4D v399, (399) C4D v400, (400) C4D v401, (401) C4D v402, (402) C4D v403, (403) C4D v404, (404) C4D v405, (405) C4D v406, (406) C4D v407, (407) C4D v408, (408) C4D v409, (409) C4D v410, (410) C4D v411, (411) C4D v412, (412) C4D v413, (413) C4D v414, (414) C4D v415, (415) C4D v416, (416) C4D v417, (417) C4D v418, (418) C4D v419, (419) C4D v420, (420) C4D v421, (421) C4D v422, (422) C4D v423, (423) C4D v424, (424) C4D v425, (425) C4D v426, (426) C4D v427, (427) C4D v428, (428) C4D v429, (429) C4D v430, (430) C4D v431, (431) C4D v432, (432) C4D v433, (433) C4D v434, (434) C4D v435, (435) C4D v436, (436) C4D v437, (437) C4D v438, (438) C4D v439, (439) C4D v440, (440) C4D v441, (441) C4D v442, (442) C4D v443, (443) C4D v444, (444) C4D v445, (445) C4D v446, (446) C4D v447, (447) C4D v448, (448) C4D v449, (449) C4D v450, (450) C4D v451, (451) C4D v452, (452) C4D v453, (453) C4D v454, (454) C4D v455, (455) C4D v456, (456) C4D v457, (457) C4D v458, (458) C4D v459, (459) C4D v460, (460) C4D v461, (461) C4D v462, (462) C4D v463, (463) C4D v464, (464) C4D v465, (465) C4D v466, (466) C4D v467, (467) C4D v468, (468) C4D v469, (469) C4D v470, (470) C4D v471, (471) C4D v472, (472) C4D v473, (473) C4D v474, (474) C4D v475, (475) C4D v476, (476) C4D v477, (477) C4D v478, (478) C4D v479, (479) C4D v480, (480) C4D v481, (481) C4D v482, (482) C4D v483, (483) C4D v484, (484) C4D v485, (485) C4D v486, (486) C4D v487, (487) C4D v488, (488) C4D v489, (489) C4D v490, (490) C4D v491, (491) C4D v492, (492) C4D v493, (493) C4D v494, (494) C4D v495, (495) C4D v496, (496) C4D v497, (497) C4D v498, (498) C4D v499, (499) C4D v500, (500) C4D v501, (501) C4D v502, (502) C4D v503, (503) C4D v504, (504) C4D v505, (505) C4D v506, (506) C4D v507, (507) C4D v508, (508) C4D v509, (509) C4D v510, (510) C4D v511, (511) C4D v512, (512) C4D v513, (513) C4D v514, (514) C4D v515, (515) C4D v516, (516) C4D v517, (517) C4D v518, (518) C4D v519, (519) C4D v520, (520) C4D v521, (521) C4D v522, (522) C4D v523, (523) C4D v524, (524) C4D v525, (525) C4D v526, (526) C4D v527, (527) C4D v528, (528) C4D v529, (529) C4D v530, (530) C4D v531, (531) C4D v532, (532) C4D v533, (533) C4D v534, (534) C4D v535, (535) C4D v536, (536) C4D v537, (537) C4D v538, (538) C4D v539, (539) C4D v540, (540) C4D v541, (541) C4D v542, (542) C4D v543, (543) C4D v544, (544) C4D v545, (545) C4D v546, (546) C4D v547, (547) C4D v548, (548) C4D v549, (549) C4D v550, (550) C4D v551, (551) C4D v552, (552) C4D v553, (553) C4D v554, (554) C4D v555, (555) C4D v556, (556) C4D v557, (557) C4D v558, (558) C4D v559, (559) C4D v560, (560) C4D v561, (561) C4D v562, (562) C4D v563, (563) C4D v564, (564) C4D v565, (565) C4D v566, (566) C4D v567, (567) C4D v568, (568) C4D v569, (569) C4D v570, (570) C4D v571, (571) C4D v572, (572) C4D v573, (573) C4D v574, (574) C4D v575, (575) C4D v576, (576) C4D v577, (577) C4D v578, (578) C4D v579, (579) C4D v580, (580) C4D v581, (581) C4D v582, (582) C4D v583, (583) C4D v584, (584) C4D v585, (585) C4D v586, (586) C4D v587, (587) C4D v588, (588) C4D v589, (589) C4D v590, (590) C4D v591, (591) C4D v592, (592) C4D v593, (593) C4D v594, (594) C4D v595, (595) C4D v596, (596) C4D v597, (597) C4D v598, (598) C4D v599, (599) C4D v600, (600) C4D v601, (601) C4D v602, (602) C4D v603, (603) C4D v604, (604) C4D v605, (605) C4D v606, (606) C4D v607, (607) C4D v608, (608) C4D v609, (609) C4D v610, (610) C4D v611, (611) C4D v612, (612) C4D v613, (613) C4D v614, (614) C4D v615, (615) C4D v616, (616) C4D v617, (617) C4D v618, (618) C4D v619, (619) C4D v620, (620) C4D v621, (621) C4D v622, (622) C4D v623, (623) C4D v624, (624) C4D v625, (625) C4D v626, (626) C4D v627, (627) C4D v628, (628) C4D v629, (629) C4D v630, (630) C4D v631, (631) C4D v632, (632) C4D v633, (633) C4D v634, (634) C4D v635, (635) C4D v636, (636) C4D v637, (637) C4D v638, (638) C4D v639, (639) C4D v640, (640) C4D v641, (641) C4D v642, (642) C4D v643, (643) C4D v644, (644) C4D v645, (645) C4D v646, (646) C4D v647, (647) C4D v648, (648) C4D v649, (649) C4D v650, (650) C4D v651, (651) C4D v652, (652) C4D v653, (653) C4D v654, (654) C4D v655, (655) C4D v656, (656) C4D v657, (657) C4D v658, (658) C4D v659, (659) C4D v660, (660) C4D v661, (661) C4D v662, (662) C4D v663, (663) C4D v664, (664) C4D v665, (665) C4D v666, (666) C4D v667, (667) C4D v668, (668) C4D v669, (669) C4D v670, (670) C4D v671, (671) C4D v672, (672) C4D v673, (673) C4D v674, (674) C4D v675, (675) C4D v676, (676) C4D v677, (677) C4D v678, (678) C4D v679, (679) C4D v680, (680) C4D v681, (681) C4D v682, (682) C4D v683, (683) C4D v684, (684) C4D v685, (685) C4D v686, (686) C4D v687, (687) C4D v688, (688) C4D v689, (689) C4D v690, (690) C4D v691, (691) C4D v692, (692) C4D v693, (693) C4D v694, (694) C4D v695, (695) C4D v696, (696) C4D v697, (697) C4D v698, (698) C4D v699, (699) C4D v700, (700) C4D v701, (701) C4D v702, (702) C4D v703, (703) C4D v704, (704) C4D v705, (705) C4D v706, (706) C4D v707, (707) C4D v708, (708) C4D v709, (709) C4D v710, (710) C4D v711, (711) C4D v712, (712) C4D v713, (713) C4D v714, (714) C4D v715, (715) C4D v716, (716) C4D v717, (717) C4D v718, (718) C4D v719, (719) C4D v720, (720) C4D v721, (721) C4D v722, (722) C4D v723, (723) C4D v724, (724) C4D v725, (725) C4D v726, (726) C4D v727, (727) C4D v728, (728) C4D v729, (729) C4D v730, (730) C4D v731, (731) C4D v732, (732) C4D v733, (733) C4D v734, (734) C4D v735, (735) C4D v736, (736) C4D v737, (737) C4D v738, (738) C4D v739, (739) C4D v740, (740) C4D v741, (741) C4D v742, (742) C4D v743, (743) C4D v744, (744) C4D v745, (745) C4D v746, (746) C4D v747, (747) C4D v748, (748) C4D v749, (749) C4D v750, (750) C4D v751, (751) C4D v752, (752) C4D v753, (753) C4D v754, (754) C4D v755, (755) C4D v756, (756) C4D v757, (757) C4D v758, (758) C4D v759, (759) C4D v760, (760) C4D v761, (761) C4D v762, (762) C4D v763, (763) C4D v764, (764) C4D v765, (765) C4D v766, (766) C4D v767, (767) C4D v768, (768) C4D v769, (769) C4D v770, (770) C4D v771, (771) C4D v772, (772) C4D v773, (773) C4D v774, (774) C4D v775, (775) C4D v776, (776) C4D v777, (777) C4D v778, (778) C4D v779, (779) C4D v780, (780) C4D v781, (781) C4D v782, (782) C4D v783, (783) C4D v784, (784) C4D v785, (785) C4D v786, (786) C4D v787, (787) C4D v788, (788) C4D v789, (789) C4D v790, (790) C4D v791, (791) C4D v792, (792) C4D v793, (793) C4D v794, (794) C4D v795, (795) C4D v796, (796) C4D v797, (797) C4D v798, (798) C4D v799, (799) C4D v800, (800) C4D v801, (801) C4D v802, (802) C4D v803, (803) C4D v804, (804) C4D v805, (805) C4D v806, (806) C4D v807, (807) C4D v808, (808) C4D v809, (809) C4D v810, (810) C4D v811, (811) C4D v812, (812) C4D v813, (813) C4D v814, (814) C4D v815, (815) C4D v816, (816) C4D v817, (817) C4D v818, (818) C4D v819, (819) C4D v820, (820) C4D v821, (821) C4D v822, (822) C4D v823, (823) C4D v824, (824) C4D v825, (825) C4D v826, (826) C4D v827, (827) C4D v828, (828) C4D v829, (829) C4D v830, (830) C4D v831, (831) C4D v832, (832) C4D v833, (833) C4D v834, (834) C4D v835, (835) C4D v836, (836) C4D v837, (837) C4D v838, (838) C4D v839, (839) C4D v840, (840) C4D v841, (841) C4D v842, (842) C4D v843, (843) C4D v844, (844) C4D v845, (845) C4D v846, (846) C4D v847, (847) C4D v848, (848) C4D v849, (849) C4D v850, (850) C4D v851, (851) C4D v852, (852) C4D v853, (853) C4D v854, (854) C4D v855, (855) C4D v856, (856) C4D v857, (857) C4D v858, (858) C4D v859, (859) C4D v860, (860) C4D v861, (861) C4D v862, (862) C4D v863, (863) C4D v864, (864) C4D v865, (865) C4D v866, (866) C4D v867, (867















# Bye, Bye Baby...

We'd like to say this is all a joke, but alas it's not. This is the last ever issue of CU Amiga, so we thought we'd take a few pages to close the account properly.

**Y**es, this is the last ever issue of CU Amiga. Well technically it isn't definitely the last ever, as EMAP CU Amiga's publisher, could reopen the

title at any time, but there are no plans to do so. If EMAP decide to revive the next generation Amiga user base it's unlikely that the CU Amiga name would be used (for a start the "CU" prefix would mean even less than it does now). So, based on that, it's safe to say that this is the last CU Amiga ever.

While the current team consists of myself (Tim), Andrew Korn, Richard Drummond, Russ Cox and a long list of dedicated freelance contributors, CU Amiga has roots that stretch back so far that no one actually knows when it all started. We can pinpoint a change from simply "CU" to "CU Amiga" but the magazine has evolved through a number of forms including Commodore User and 160 User before that. What is sure is it is then that there's no suitable evolutionary step that can be taken at this point. Had we managed to stick it out for the next year or so, no doubt the magazine would have died its size twice again and re-emerged itself as the world's best Super Amiga mag.

## Conspiracy theories

We've already had our fair share of conspiracy theories suggested by disappointed readers. There's one particularly ill-informed one that claims EMAP is ditching all its computer titles. That's total rubbish. Then there are the more predictable ones about closing CU Amiga and starting up a PC magazine. Let me assure you, at this point none of the CU team has any intention of moving to a PC magazine (not that we should be ashamed of it if we were - everybody has to make a living). A few readers have suggested we all take a pay cut. Well we are, a 100% pay cut! However, most have been very kind in their response to the news and I'd like to say a big thank-you to all of them on behalf of the team. It means a lot to know that all our hard work was appreciated by so many.

There are a few small conspiracies to this situation. For example, we are now at liberty to let a few cats out of a few bags, such as the double fees levied by the CU team. As many suspected, Mr. Drummond is actually a cyborg: half man, half

Dear Tim,

I'm sorry to be writing to you under these circumstances. Although most of your readers may believe otherwise, the only rivaling person or have been professional, not personally, we have enjoyed the rivalry and competitiveness with CU Amiga over the years, and this is not how I would choose to see it end. The only is that the closure of your magazine is in no way a reflection on the skills, drive or reputation of you and your staff. The ups and downs we have seen due to differing commercial philosophies repeated at our respective companies, and of course, the

but I would hope that you pass but to your readers that this does not mean the end of the world, or even of Amiga magazines. Future publishing operates on a different business model. Being primarily a specialist publication from smaller circulation magazines, and I can understand why that Amiga format is financially healthy, and is no danger of closing.

From an editorial perspective, we also have to be aware of putting less stress into the 1600. On the contrary, which is competition to game magazines again, we will have to be harder on ourselves, and more responsive to criticism from design shops and advertisers. I would also like to say that you and all your contributors would certainly be very welcome on elsewhere (contributions to design forum - John give me a call).

Yours truly,





Without these committed tax payers

Small portions of the Amigos made the short drive to the Amigos to stay in the Amigos.

## Petro Tyachetschenko, Amigo International

The authors of Volume 1 of the *Small Business Survival Guide*, *The 21st Century Magazine* and *Entrepreneur* are looking for Volume 2. If you're interested, please email me after December 31st and I'll be glad to be contacted. I would like to thank you all for the letters and support. I'll be in *The 21st Century Magazine*, who have done a great job. Thanks. My special thanks to *Entrepreneur*, *Small Business Survival Guide* and *Small Business*.

## David Link, H&amp;S/ET Systems

"HISPT is and has been the closest of CBI friends. We would like to thank the magazine and all its staff and readers over the years for their loyal support of the Amiga. We would also like to assure everyone that we are fully committed to the Amiga platform and intend to have the 100 series as long as they need us."

Andre Reed, Crystal Software

"I can honestly say that CU has helped us understand customers of the world. I wish you all the very best for the future and only hope that when the foreign business more profitable for BMAP that we will see CU Airings more to include in the future. I would like to say that Crystal Software is still committed to the future of the company and will continue to support anybody who feels its time to push the Airings with the new technology."

**Law, Governance, & Policy** Knight Technology

White Knight Technology are very happy to hear of your success. We're glad you're independent. Over the years it has enabled us to grow our business and we're proud of this. We can be identified in the growth of our business and we can visit. Where a new company is connected to the high end of the market, we can come in a short time to be there. We're happy to deliver and help you grow. We will continue to work with you. And we'll keep every machine in the UK in the same. See you on the big day.

## Chris Wilson, Arctic Technology

The State College for the visually impaired, located in the heart of the city and just off Highway 201, is one of the largest and oldest schools of its kind in the United States. It has a long history of providing education and training for the blind and visually impaired, and is a leading center for research and development in the field of visual impairment.

Amiga. His noticeably shaven head was due to his having put another CPU upgrade inserted into his cranium. Then there's Andrew Korn, by night the transformer, Nintendist into "The Great Komplexio," a stage hypnotist who regularly shaves his audiences at West End theatres. Richard Swenson pleaded with us not to mention the fact that he was once in the line-up of Paul McCartney's Wings, but we couldn't resist, telling you in no uncertain tone that, despite his "hard man of techno" image, is actually considered something of a superstar DJ at his local under 'his sister disco. Then there's me. I'm not writing this. I developed a couple generating machine many years ago when I was bored of writing computer game reviews. It's been programmed to adapt to changes, request a few keywords and then pump out words to fit a specified space on the page. I did this because I was actually sceptically looking back when Commodore went bust. Hopefully my request to be defuncted when the Amiga makes a comeback will be granted. Otherwise, this copy generating system is programmed to spill lots more secrets about lots more people until they unsubscribe. And that's the truth.

## Love, hunter

Let's not deny we all have a deep, deep relationship with our Amigos. CU Amiga has always been honest about its feelings, but it seems appropriate that we now lay claim to our real loves and hates, so here they are:

## L. ...

- Easily convertible long
- New guys (not really)
- Craft stations
- No immortality

1000

- Can't keep up in a job
- No-one knows what it is
- The response "Oh yeah, aren't they rubbish now?"
- Official Archaic Theme Song
- 1987-9

While we're here, we may as well let you in on some of our 'favourite' cock-ups. Does anyone remember the September 1995 Contents page which had half of the product descriptions listed in from the previous month? Or

different from the information contained in the same

From all I have read about with EMS, it just isn't true. You can't have a good idea of how the EMS is going to work until you have the EMS in place.

[illegible]

It's not like people just want the odd game of *Shogun*, or enough to burn. They don't want to sit and stare, and they don't derive pleasure from the slow, intricate suspense of watching fierce men maneuver. But to the vast majority of gamers, get rich, get it, discount computer, and get a 3D5000, too. People like what's new, the latest thing.

you notice how we never once managed to get all the jokes (puns, names, tags) to line up? Then there was the time someone "forgot" to put CDs in all the computers. Copies of the June 20 edition - how we laughed. Many moons ago some not-as-bright spark entered an obscure word as his player name before taking screenshots for a game review. A bit of a laugh? No, really, how all have to be returned to the

warehouse to have little old ladies, black and the offending word with a market pen on well over 100,000 copies. Then they add the wrong bar code on the July 80 issue.

Be sure not to forget to say it somewhere else in this issue, goodbye! We love you! Thanks for reading and knowing which was the best Airgas mag in the world! See you all again soon.



# You Have Been Reading...

We couldn't think of a better way to pay tribute to those who have helped shape CU over the years than printing a load of embarrassing old pictures, so here's a selection of them in no particular order...



**Name:** Jason Helborn  
**Former position:** Freelance Contributor  
**Most likely to say:** "Goyard, it be nice in France"  
**Last seen:** in France (probably)



**Name:** Andy Leaning  
**Former position:** Technical Editor  
**Most likely to say:** "Do you like my novelty tie?"  
**Last seen:** editing a medical supplies trade paper



**Name:** Jon Sloan  
**Former position:** Deputy Editor  
**Most likely to say:** "Watch it, I'm Three Dan in Ten Games Go!"  
**Last seen:** swanning around as a big-shot games PR person



**Name:** Alan Dwyer  
**Former position:** Editor  
**Most likely to say:** "Anyone fancy a Chinese?"  
**Last seen:** tussling into a plate of Singapore fried noodles at PC Gaming World



**Name:** Nick Worch  
**Former position:** Technical Editor  
**Most likely to say:** "My alarm clock didn't go off"  
**Last seen:** striking curious poses in a certain mall Amiga mag



**Name:** Mark Patterson  
**Former position:** Staff Writer  
**Most likely to say:** "I'm not into heavy metal and more!"  
**Last seen:** leaving for the Far East to seek his fortune



**Name:** Ian Kinglake  
**Former position:** Editor  
**Most likely to say:** "Isn't just a bird on the cover?"  
**Last seen:** directing a 'glamorous' photo shoot in Bath



**Name:** Lisa Collins  
**Former position:** Deputy Editor  
**Most likely to say:** "Does it really give you cancer?"  
**Last seen:** in a cafe in Scotland

Some of The Many Faces of CU Amiga Magazine



1985



1988



1989



1991





**Name:** Matt Broughton  
**Former position:** Technical Editor  
**Most likely to say:** "I'm not being funny, but... instant offensive command here!"  
**Last seen:** writing for a PC mag with a lower sale than CJ



**Name:** Matt Broughton  
**Former position:** Games Consultant  
**Most likely to say:** "Aw!"  
**Last seen:** dragging their drinks everywhere



**Name:** Matt Broughton  
**Former position:** Technical Editor  
**Most likely to say:** "I told this thing sucks!"  
**Last seen:** surgically wired to an IGN link playing Quake 2



**Name:** Tony Dillon  
**Former position:** Games Editor  
**Most likely to say:** "You'll never guess what happened to me today..."  
**Last seen:** logging "Secrets of Frontier" down Islington market



**Name:** Dave Stroud  
**Former position:** Features Contributor  
**Most likely to say:** "I can't believe it's not Topaz!"  
**Last seen:** knocking on the doors of Amiga Format



**Name:** Justin Corry  
**Former position:** US Correspondent  
**Most likely to say:** "You're just going to love this feature idea!"  
**Last seen:** at a training camp in Arizona



**Name:** Andrew Korn  
**Former position:** Deputy Editor  
**Most likely to say:** "Sorry, the Northern Line wasn't running"  
**Last seen:** lecturing on on the Open University



**Name:** Richard Drummond  
**Former position:** Staff Writer  
**Most likely to say:** "Darned, where's your trousers?"  
**Last seen:** trying to convince everyone that he's actually not Scottish at all



**Name:** John Kennedy  
**Former position:** Technical Consultant  
**Most likely to say:** "No really, you should try WindowsCE!"  
**Last seen:** stuck between wobbly retailers on his BMW bike



**Name:** Peter Cox  
**Former position:** Production Editor  
**Most likely to say:** "You've got five minutes to finish this news!"  
**Last seen:** touring his motorbike down around Burton



**Name:** Neil Bothwick  
**Former position:** CD Compiler  
**Most likely to say:** "...No Windows!"  
**Last seen:** making a new life for himself as a Geoff-Caplan-o-Geant



**Name:** Tony Holger  
**Former position:** Editor  
**Most likely to say:** "Mouster, not Mouster..."  
**Last seen:** On the piss with Kevin Capwell





# What's happening to The Amiga?

Does the closure of CU Amiga mean the end of the Amiga? The simple answer is no. Don't believe us? In a last effort to remedy that, we asked Amiga Inc to spill the beans. Fleecy Moss - the man Petro calls Fleecy - has quite a lot to say.

## A few words with Fleecy Moss



Fleecy Moss is not a name many are familiar with. To many people expecting the return of a

Haynie or a Commodore, Fleecy was just an unknown with an odd name. So who is the man who some people are calling a major computer visionary - and other people are calling Mossy Fleecy?

"I am British but currently working in the US," he tells us. "I am a project manager and systems architect responsible for implementing enterprise level distributed computing systems. I have been an Amiga user for about 8 years, and started out on a Commodore Pet and Vic20 when I was about 11. I have never looked back."

"What I hope I bring to the Amiga is a respect for its philosophy and community ideals, as well as a good feel for the future of computing and the digital information revolution. With the explosion of connectivity and the ubiquitous presence of digital information, the Amiga is in a unique position to provide the technology to take the world by storm."

Heeem. Sounds promising, but will it happen? It's been a long 10 months of promises for every Amiga user, and a fair few people are losing the faith. Never ones to shy away from asking the parti-

cular questions, we wanted to know how Fleecy explained the perceived delays.

"The first point I would like to make is that everyone at Amiga Inc. is as frustrated about the slow our efforts are taking as is the rest of the community. We want to be using the new machines in our offices now. We are sick of Windows crashing, PowerPoint losing files and email disappearing. We are sick of rebooting, freezing up and the blue screen of death. We want machines that let us do our job and have fun doing it. That machine is the new Amiga."

Don't we all. Fleecy! So why is it taking so long?

"Well, the first thing to understand is that we have only really been able to concentrate on this since April, when Bill McEwen, Alan Howerance and myself were brought on board. The initial

has allowed us to progress in leaps and bounds. His presence at the Wot, in spite of his packed schedule was a ringing endorsement of Amiga."

"So really, we have only had the necessary power to move since January, and we have only had the team capable of making the Amiga great again since April."

Well, it's certainly reassuring to hear a reasonable explanation of the delays. Sometimes it has seemed on the outside that things were going smoothly but painfully slowly at Amiga Inc. It's good to know that the delays have been precisely because things have not been totally smooth, because at least we can now be content in the knowledge that we shouldn't suffer so many delays in the future. However, delays are damaging, and given that it took so long to get things started, wouldn't it have made it more sense to just develop a PPC version of the OS and go that way? There would have been a natural progression, somewhere for current developers to go, and things would start happening now. Fleecy is known to be a fan of the PPC line of ships, but thinks this would have been a bad idea.

"Where would we be? We'd have a standard PPC machine and a five year old OS that runs fast. Our market would still be small, we would have no partners, we would have nothing really special to drive us forwards."

"Rebuilding the Amiga isn't just about rebuilding the machine and the OS. That would be relatively easy (although it would still take a year or more). It's about taking

that next step forwards, pushing out into the unknown waters defining the future and then claiming it for ourselves. To do that requires vision, cutting edge technology and most importantly partners. A coalition for the next millennium. We have been working on all of these parts and we had hoped to have everything in

## "A Coalition for the next Millennium"

place to share with the community at the Wot. Unfortunately, by strange events meant that that was impossible. As it turns out, though, this may have been a blessing since we may now have a coalition superior to the one we were putting together for the Wot."

What about the OS permit that Fleecy cannot be specific, but reveals a little.

"What I can tell you is that once we have the deal signed, sealed and delivered (in just a few days), then we will be able to announce our formal partner to the Amiga community."

We are very impressed with their product, and the fact that some of their chief engineers will have 3000s in working order made it seem more like a family reunion than a business meeting."

The people who have suffered from a lack of info is of course the average user on the street. Most of us in the industry have at least some inkling that there is more going on behind closed doors than meets the eyes, so why is there such a veil of secrecy over it all?

**The Amiga is in a unique position to provide the technology to take the world by storm."**

CCM content helped to firm up this understanding, which is where they appointed Jeff Schneider as general manager, to look into ways of bringing the Amiga back to market.

"Our viability suffered somewhat also, despite Jeff and Marilyn (Marilyn Flint, Operations manager) putting forward a number of proposals."

"It was only just after Christmas that Jim Collins found out about us. He became very excited and has since taken us very much under his wing, which



Even the question seems a dark secret, as Fleury offered *OSM/TA* the veiled details of corporate secrets and how's heads of I find out too soon, but was willing to impart two basic reasons.

"It is creating and trying to sell a vision for the future, we are talking to many companies. They also have visions, product plans and strategies, most of which are the key to their success in the middle and long term. That they are willing to talk to us and share with us is a sign that our plan holds a lot of promise. However, they certainly don't want others knowing about it."

"It There are large "companies" that already dominate the present in both hardware and software, and they have a lot of clout. Many companies are genuinely concerned about damaging their existing, profitable relationships for the potential of future relationships. We have to prove ourselves to each of them, but it has to be done behind closed doors."

"So, whilst we are in this planning and development phase, then secrecy is required. What you can be guaranteed of though is that when we and our partners are ready, the launch will be like nothing that the industry has ever seen."

Sounds good! Does this mean that Amiga Inc. are planning – and have budgeted for – a launch event?

possible to the 1986 Macintosh "think different" campaign which caught the imagination of the whole industry?

"With the launch of the Mac in '86, there was only one company. As I have mentioned before, the key to all our successes with the launch of *OSM/TA* will be that we are working in conjunction with partners. We hope that all will launch their first generation products at the same time, using their own marketing strategies, but that the common theme of "powered by Amiga" will link them all together, providing a very compelling argument for choosing Amiga enabled devices and products."

Of course the most compelling argument will be price. We have heard much about the supertool, although it is, at present, vague. The specs announced so far are impressive, but not too breath-

in a money is no object basis. So how good will it really be? Is it really as radical as all that?

"The beauty of the supertool is that it offers a very impressive across-the-board price/performance ratio. Thus we can have our webTV/Intelligent television products, our 5200 A1200 machines, our 11000 desktops and our 32000 workstations and servers."

"Also remember, as the Amiga has proved before, that it is not just a question of processor speed or 68 series of hardware, it is about blending the OS and the hardware together in perfect harmony to create something that is so much more than the sum of its parts. In Allen Hammett, we have one of the most talented OS designers on the planet."

OK, but there's more than one company trying up the integrated multimedia system market. How will the new Amiga compete with the likes of the Sega Dreamcast and the Sony Playstation 2?

"They are both likely to be very strong products, giving people 32000+ computing power in a 3000+ package. We have the technology to make these look very ordinary."

Well, if that is really true, there will be a lot of happy Amigas. Playstation 2 seems a couple of months away from announcement,

the disappointment we had at Web, we have been inundated with mails from people asking us to please reconsider. We are now looking at our schedules, our resource budgets, and I have also been very active in the on-line community, chatting to users, developers, retailers and anyone else that can sit on the other end of a modem. If we can satisfy ourselves that we have the time, and that there is the demand for a classic Amiga upgrade, then we will put a plan together to make it so."

"Given what we have heard so far the Amiga community would like us to provide an upgrade offering new features and functionality that allows people to upgrade their machines and provide a much higher baseline."

This is true would provide

**"The Amiga community would like us to provide an upgrade offering new features and functionality."**

a much higher new baseline for software developers, allowing them to show off their talents to the full. In addition, the extra demand for accelerators, CD drives, sound and graphics cards and PPC co-processors should see a boost in the retail market. These are all good reasons, as far as we can see for an upgrade. Please stay tuned."

That sounds dangerously close to an official sanction. Does this mean that despite selecting something else for the long term future, PPC could be the official next CPU of the Classic Amiga?

"If we did an upgrade, it would be done because a) the community has asked for it and b) we saw the period of overlap between the classic and the new Amiga as being too long. In that case, a strong upgrade would hopefully serve to make the transition much less painful."

"However a transition it would still be. Any upgrade would be the last official incarnation of the classic Amiga line. *OSM/TA* (for developers and curious users) and *OSM/TA* will be the next Amiga products. So we cannot say that PPC would be the next CPU of the classic Amiga line because, as far as we are concerned, the classic goes into graceful retirement when *OSM/TA* comes into being."

"We see the transition taking from 18-36 months, which is why we think Amiga users should upgrade their classic

systems, and should buy new software, peripherals and cards. At the

moment, there seem to be several compelling arguments for an upgrade, including the fact that the classic Amiga will continue working long after *OSM/TA* is released and will continue to give pleasure to many. I know mine will stay plugged in until every chip and track has burnt out... I still have to finish Cannon Fodder."

Well, there's a good reason for the New Amiga to have a nice built-in classic Amiga emulator as standard if ever I heard one! Thanks, Fleury.

but Dreamcast already has the world's games developers in raptures. What will they make of a computer that makes them look ordinary? (Fleury continues.)

"We also feel that they are first and foremost games machines which only pay lip service to the digital consumer-games market. There is no desktop or workstation that can play the Dreamcast CDs (that a normal user has anyway). They are very fixed function devices. They are definitely moving in the direction of our market though, and if anything they give us added impetus to get moving."

OK. Fleury enough about the NG Amiga, our readers want to know about the classic line.

"Our original plan was to having *OSM/TA* out before any classic Amiga upgrade (that would be worth calling an upgrade anyway) could be completed. Since





# Further Reading

Despite what we might have previously had you believe, CU Amiga is not the world's only Amiga magazine. Here's a selection of the most prominent alternatives from around the world. Check them out.

## Amazing Computing/Amiga



Amazing Computing/Amiga is the longest running monthly Amiga periodical in the world (first issue released January 1988). AC is the only North American full colour monthly publication and it is distributed through subscriptions and newsstands. Single price: \$3.99/US. US/Can: 1-800-59-AMIGA. Orders: 598-678-4290. [www.purple.com](http://www.purple.com)

## Amiga Informer



The Amiga Informer magazine is a bi-monthly, quarterly publication produced in the UK for nearly the past three years catering for Amiga-based Amiga users. Subscriptions are the best way to get the Informer, but plans are in the works to bring it to a UK distributor soon.

[www.amiga.informer.com](http://www.amiga.informer.com)  
email: [editor@informer.net](mailto:editor@informer.net)

## Amiga Format



Amiga Format is based in the UK and covers all areas of general Amiga usage. It is published 12 times a year and is available in selected newsstands internationally as well as subscription. Price: Paper £4.95, CD £5.95.

Tel: 01753 432244  
Sales: 01456 271102  
email: [amifan@futurenet.co.uk](mailto:amifan@futurenet.co.uk)

## Amiga Info



AmigaInfo is a Swedish magazine for Amiga and Linux users. The Linux section is not platform specific.

Swedish: AmigaInfo is an e-week ending for Amiga and Linux enthusiasts. Linux: deliver it for all platforms.

www: <http://www.info.se>  
email: [info@info.se](mailto:info@info.se)

## Amiga Survivor



Amiga Survivor is a brand new 40-page monthly magazine dedicated to the Amiga games scene. It features game reviews, homebrew, shareware and hardware reviews, printed and news.

[www.creative-software.com/amigasurvivor/janindex.html](http://www.creative-software.com/amigasurvivor/janindex.html)  
Tel: 01441 501892 505800

## New Techniques



NewTechniques magazine covers all NewTek products, including LightWave 3D, Aura, Imagine 3D, the Video Toaster, and the Video Toaster Pro.

Subscription info: [www.newtechniques.com](http://www.newtechniques.com)

Free daily news updates: <http://www.newtechniques.co.uk/ntk/ntk.htm>



# Bill Gates Halloween Mask



## Directions

- Cut with sharp knife or scissors around Bill's head, avoiding the temptation to cut off his ears.
- Sculpt out his eyes with a pencil or spoon.
- Spike small holes in the sides of his head near the temples for maximum pain (these also serve for attaching string to his face so you can wear him).





# NETWORKING

## made simple

### Amiga-to-PC Networking

**M**any Amiga users now use or even PCs, either through the necessities of their work or study, or simply because there are now a plethora of unique and "industry standard" software applications and hardware upgrades for the PC platform that will sadly never make it onto the Amiga.

Needless to say, it is highly likely that you also own either have long-term access to a desktop or laptop PC in addition to your Amiga. If you are one of the thousands of people who run a PC along with their Amiga, today is perhaps the best time ever in Amiga history to attempt networking the two machines together.

#### Why bother

If you use both, you no doubt swap files between them. The lack of a high density drive on most Amiga machines makes the laborious process of moving software on floppy disks even worse than it already is. What if you could take all that effort out of the equation? What if you could use the high density floppy drives of the PC for your Amiga (remember HD-Amiga drives are notoriously expensive, as is the combination of a PC floppy drive unit and a Colosseum if you aren't using HD disks every day). But why stop there - you could do the same thing with the floppy and CD drives on the PC. If you have an Ethernet link, you can even access these at full speed!

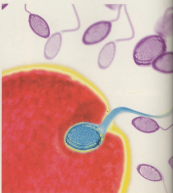
But wait! There are other capabilities within a decent PC that can only benefit your Amiga. Graphics cards for the Amiga are expensive, whether you go Zorro, PPC or even AttoBus; you are still looking at speeding £200+ for one. What if you could use your PC to display your Amiga screen, taking the load off the graphics chips and utilizing the huge screen sizes, True Colour and High Colour modes that modern PC graphics cards offer. All this is achievable by linking your Amiga to a PC.

#### Creating a cross-platform network

As with the Amiga-to-Amiga networking discussed in part one of this series, your Amiga-to-PC network can be as simple as just cobbling together a basic null-modem link between computers and using terminal-based communications packages on either end for basic file transferring. Then again, there is so much ingenuity among the Amiga programming scene that a number of specialised and truly fantastic software packages have been developed to cope solely with connecting

a PC to your Amiga. These offer you the chance to do things with your new network that simply would be unimaginable in a PC-only environment.

These options range from basic one-way file transferring and drive sharing to a full two-way data communication with printer and even modem sharing to the ultimate concept, the ability to connect the two machines into one system, using one monitor, keyboard and mouse to operate both machines simultaneously. Obviously, the more advanced your intentions or requirements become, the







## The available ranges of add-on I/O ports are the following:

**Active Technologies**, 01226 448116, [www.activetech.co.uk](http://www.activetech.co.uk)

**Hypercom 11**: Clock port single serial port for A1200, £38.99

**Hypercom 3**: Clock port twin serial and single parallel ports for A1200, £79.99

**Hypercom 23**: Zorro 263 twin serial and single parallel ports for all Zorro-based machines, £34.99

**Hypercom 24**: Zorro 263 four serial ports for all Zorro-based machines, £89.99

**Eyetech**, 01643 731185, [www.eyetech.co.uk](http://www.eyetech.co.uk)

**PortPlus**: Clock port twin serial and single parallel ports for A1200, £79.99

**PortJet**: Clock port single serial port for A1200, £38.99

**HiSoft**, 0580 223 860, [www.hisoft.co.uk](http://www.hisoft.co.uk)

**Whigpet**: PCMCIA serial port for A600 and A1200, £49.99

more expensive the software will also be, with commercial software options ranging from under £20 up to around £100 for the most advanced systems.

## Hardware

There are basically three hardware methods for forging the link between the two machines, the most basic being a parallel link cable, which will provide the cheapest, easiest, but most CPU intensive method of connection.

From there is the trusty but ageing null-modem cable. Using the serial ports of the machines to create a link by cross-linking the send and receive lines results in a connection which functions just as two machines connected across phone lines with modems would. This bandwidth is higher (so therefore faster), more reliable and far less intensive on CPU time than a parallel link, as well as being very cheap.

Then there is Ethernet, which offers vast bandwidth and super-fast transfer speeds, even less CPU intensive than serial and the ability to connect into networks of more than two machines, unlike serial or parallel.

Parallel can transfer an average 50K per second, Serial about 115.2K and Ethernet around 10MB and higher. By

using add-on high-speed parallel and serial cards on both systems, particularly on the Amiga side, you can often double the parallel transfer rate and quadruple the serial rate. This is because the built-in ports on the Amiga are particularly badly implemented, not to mention limited by the ageing CIA controller. Boards such as the Hypercom put this right by employing more up-to-date I/O hardware.

## Conclusion

Network solutions need not break the bank in order to deliver decent results. File sharing, which is what the bulk of users need, can be done with enough change from £20 for a pint of lager. For a few pounds more, you can go the whole way and truly combine your machines into one fully integrated system. No other computer offers this degree of integration, surpassing in this day to a PC owner, but if you have used an Amiga seriously, you'll already know that this level of flexibility is inherent to almost all Amiga software and hardware.

Particularly while we wait for the new Amiga hardware to emerge, linking your Amiga to a PC, you can begin to experience much of the PC technology that the recent years of inactivity from past Amiga owners has seen overlooked and dismissed as viable for our own platform. Cheap hard drives, graphics cards, sound cards, monitors and keyboards are all within reach, without having to tower or surgically dissect your motherboard, just with the use of a cable and some very enterprising software!

## Serial and Parallel

If you are not going to go down the Ethernet road, then you should seriously consider using an add-on serial or parallel card rather than the built-in ports of the Amiga if your network usage is to be anything other than light.

Add-on cards are available in various forms, either as Zorro cards, PCMCIA adapters or as plug-in boards for the clock port of an A1200 (if you actually have one that is). Sadly if you are an A600 user, your options are pretty much zero. I'm afraid, unless you can find one of the few serial adapters that connected to the side-expansion slot, all of which went out of production many years ago.



## Network PC

£17.99, Weird Science, [www.weirdscience.co.uk](http://www.weirdscience.co.uk), 0116 246 3800

Network PC is by far the simplest pre-packaged method of getting your Amiga talking to your PC.

The pack consists of a couple of floppy disks containing the necessary driver software, a small but highly useful instruction book and a laptop parallel cable. Like the former two packages, Network PC really needs Windows 95 or 98 to work properly, although you can actually use it under Windows 3.1, but with a great deal of difficulty, not to mention defeating the whole point of the Network PC system.

Unlike Shareware and Amiga Forever, the connection available here is only one-way, with the Amiga gaining full access to every drive device (hard drives, CD-ROMs, ZIPs etc.) on the PC. This is implemented in a way that those drives appear and can be used just as if they were actual devices connected to the Amiga. By this point you should have noticed the striking similarity between this and ParNet, the Amiga-to-Amiga package covered in part one.

Connection between the two machines is achieved using the supplied cable, which attaches to the printer ports on each machine. Much like a ParNet link, on the Amiga side Network PC mounts a drive-like device within Workbench called PC; which when opened reveals a selection of sub-directories. These are mapped to the physical drives fitted to the PC which your machine is connected to, as well as mirroring the PC drive names (A:, B:, C: and so on). The PC's device and its contents are treated just like any other mounted device and can be accessed by any piece of software that runs under Workbench and uses a normal file requester. Even better is the fact that the PC's device is mounted with an icon, letting you access it via the Workbench desktop, allowing drag-and-drop file operations and mouse control unlike many early ParNet systems, which were only reachable via a Shell and through requesters.

The supplied software is exceptionally well crafted, considering how small the whole package is. For the Amiga side you get one floppy containing all of the necessary software and a machine file, with hard drive installation handled by a standard, but well

written Commodore installer script. What's more, such is the thought and consideration put into this package, the Amiga disk is bootable, allowing you to test a connection or use a Network PC link on an Amiga without a hard drive.

The actual software itself can be partially transparent to the user, as you can either start the network

DOS programs on your PC, one for configuring the PC end of things, and the other to handle the connection.

The configuration program, while small is very useful, allowing you to switch between printer ports if you have more than one, as well as letting you opt for a serial link instead of the supplied parallel cable. The actual communications program, while DOS based, will sit minimised on the Windows 95 start-up, and unlike Windows 3.1, will happily multitask in the background, allowing you to continue using the PC while letting the Amiga access its drives whenever necessary.

In practice, Network PC works extremely well, as it should do considering its basic capability. Windows 95 long filenames are supported and Amiga applications can be installed and run from the remote drives. The software on both sides is extremely stable, while the supplied cable is of equally good quality.

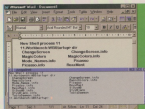
Basically, as with all parallel connections, you can forget about multitasking while transferring data, as both machines begin to grind to a halt, only more so on the Amiga. Not a real problem if you are a light or occasional user, but if you plan on PC networking on a daily or heavy basis, then this is not for you.



▶ Select Windows file system as the Network.

manually as needed (done by clicking on the MountPC icon in the newly created NetworkPC drawer) or copy the launcher script into your WDSStartup drawer. Doing this allows MountPC to run on start-up and sit in the background while it waits for the PC on the other end to finish the connection. Running Network PC this way and not actually engaging the network at both ends won't impair your Amiga, a great boost for people who want networking on demand, but without having to think about running software to trigger it.

On the PC side, you again get just a single floppy, containing all the equivalent software, this time with installation handled by the Windows InstallShield script (like Windows equivalent of the Commodore installer). This deposits two small





**Amiga Forever £39.99,**  
**Weird Science, [www.weirdscience.co.uk](http://www.weirdscience.co.uk),**  
**0116 246 3800**

Most people think purely of emulation software when they see the mention of Amiga Forever. What is often forgotten about this package is that it contains a very usable networking package for interfacing with real Amiga hardware as well.

This networking package is called Amiga Explorer and is unique in that it doesn't actually require any new software on the PC. Amiga Forever installs a patch to the Windows 95 Windows Explorer file manager. With the patch in place, it works in exactly the same way as



• Setting up the Amiga Explorer utility for transparent serial networking between a PC and an Amiga, with the Amiga drive mounted under the Windows 95 Resources

• Shows where Amiga applications is open on a Windows screen

• With SuperCD32 or below, the screen can be interrupted and changed too





Figure 1



**HEALTH CARE** *See* **HEALTH CARE**

[illegible]

1990-1991  
 1991-1992  
 1992-1993  
 1993-1994  
 1994-1995  
 1995-1996  
 1996-1997  
 1997-1998  
 1998-1999  
 1999-2000  
 2000-2001  
 2001-2002  
 2002-2003  
 2003-2004  
 2004-2005  
 2005-2006  
 2006-2007  
 2007-2008  
 2008-2009  
 2009-2010  
 2010-2011  
 2011-2012  
 2012-2013  
 2013-2014  
 2014-2015  
 2015-2016  
 2016-2017  
 2017-2018  
 2018-2019  
 2019-2020  
 2020-2021  
 2021-2022  
 2022-2023  
 2023-2024  
 2024-2025  
 2025-2026  
 2026-2027  
 2027-2028  
 2028-2029  
 2029-2030  
 2030-2031  
 2031-2032  
 2032-2033  
 2033-2034  
 2034-2035  
 2035-2036  
 2036-2037  
 2037-2038  
 2038-2039  
 2039-2040  
 2040-2041  
 2041-2042  
 2042-2043  
 2043-2044  
 2044-2045  
 2045-2046  
 2046-2047  
 2047-2048  
 2048-2049  
 2049-2050  
 2050-2051  
 2051-2052  
 2052-2053  
 2053-2054  
 2054-2055  
 2055-2056  
 2056-2057  
 2057-2058  
 2058-2059  
 2059-2060  
 2060-2061  
 2061-2062  
 2062-2063  
 2063-2064  
 2064-2065  
 2065-2066  
 2066-2067  
 2067-2068  
 2068-2069  
 2069-2070  
 2070-2071  
 2071-2072  
 2072-2073  
 2073-2074  
 2074-2075  
 2075-2076  
 2076-2077  
 2077-2078  
 2078-2079  
 2079-2080  
 2080-2081  
 2081-2082  
 2082-2083  
 2083-2084  
 2084-2085  
 2085-2086  
 2086-2087  
 2087-2088  
 2088-2089  
 2089-2090  
 2090-2091  
 2091-2092  
 2092-2093  
 2093-2094  
 2094-2095  
 2095-2096  
 2096-2097  
 2097-2098  
 2098-2099  
 2099-2100  
 2100-2101  
 2101-2102  
 2102-2103  
 2103-2104  
 2104-2105  
 2105-2106  
 2106-2107  
 2107-2108  
 2108-2109  
 2109-2110  
 2110-2111  
 2111-2112  
 2112-2113  
 2113-2114  
 2114-2115  
 2115-2116  
 2116-2117  
 2117-2118  
 2118-2119  
 2119-2120  
 2120-2121  
 2121-2122  
 2122-2123  
 2123-2124  
 2124-2125  
 2125-2126  
 2126-2127  
 2127-2128  
 2128-2129  
 2129-2130  
 2130-2131  
 2131-2132  
 2132-2133  
 2133-2134  
 2134-2135  
 2135-2136  
 2136-2137  
 2137-2138  
 2138-2139  
 2139-2140  
 2140-2141  
 2141-2142  
 2142-2143  
 2143-2144  
 2144-2145  
 2145-2146  
 2146-2147  
 2147-2148  
 2148-2149  
 2149-2150  
 2150-2151  
 2151-2152  
 2152-2153  
 2153-2154  
 2154-2155  
 2155-2156  
 2156-2157  
 2157-2158  
 2158-2159  
 2159-2160  
 2160-2161  
 2161-2162  
 2162-2163  
 2163-2164  
 2164-2165  
 2165-2166  
 2166-2167  
 2167-2168  
 2168-2169  
 2169-2170  
 2170-2171  
 2171-2172  
 2172-2173  
 2173-2174  
 2174-2175  
 2175-2176  
 2176-2177  
 2177-2178  
 2178-2179  
 2179-2180  
 2180-2181  
 2181-2182  
 2182-2183  
 2183-2184  
 2184-2185  
 2185-2186  
 2186-2187  
 2187-2188  
 2188-2189  
 2189-2190  
 2190-2191  
 2191-2192  
 2192-2193  
 2193-2194  
 2194-2195  
 2195-2196  
 2196-2197  
 2197-2198  
 2198-2199  
 2199-2200  
 2200-2201  
 2201-2202  
 2202-2203  
 2203-2204  
 2204-2205  
 2205-2206  
 2206-2207  
 2207-2208  
 2208-2209  
 2209-2210  
 2210-2211  
 2211-2212  
 2212-2213  
 2213-2214  
 2214-2215  
 2215-2216  
 2216-2217  
 2217-2218  
 2218-2219  
 2219-2220  
 2220-2221  
 2221-2222  
 2222-2223  
 2223-2224  
 2224-2225  
 2225-2226  
 2226-2227  
 2227-2228  
 2228-2229  
 2229-2230  
 2230-2231  
 2231-2232  
 2232-2233  
 2233-2234  
 2234-2235  
 2235-2236  
 2236-2237  
 2237-2238  
 2238-2239  
 2239-2240  
 2240-2241  
 2241-2242  
 2242-2243  
 2243-2244  
 2244-2245  
 2245-2246  
 2246-2247  
 2247-2248  
 2248-2249  
 2249-2250  
 2250-2251  
 2251-2252  
 2252-2253  
 2253-2254  
 2254-2255  
 2255-2256  
 2256-2257  
 2257-2258  
 2258-2259  
 2259-2260  
 2260-2261  
 2261-2262  
 2262-2263  
 2263-2264  
 2264-2265  
 2265-2266  
 2266-2267  
 2267-2268  
 2268-2269  
 2269-2270  
 2270-2271  
 2271-2272  
 2272-2273  
 2273-2274  
 2274-2275  
 2275-2276  
 2276-2277  
 2277-2278  
 2278-2279  
 2279-2280  
 2280-2281  
 2281-2282  
 228



completing the project within the  
stated time frame is through the  
Company's use of the following  
key elements: (1) the  
Company's use of the following

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26



(b)  $\text{KNO}_3$  and  $\text{KNO}_2$  are



**STUDENT PRIZES:** See above.  
The experienced author states:  
"Student prizes for essays  
come directly from your book  
and postage. Profit is the  
quality." *Copyright © 1985 by  
David C. Thompson, Inc.*



NAME	ADDRESS	CITY	STATE	ZIP
JOHN J. BROWN	1000 1st St.	St. Louis	MO	63101
JOHN J. BROWN	1000 1st St.	St. Louis	MO	63101
JOHN J. BROWN	1000 1st St.	St. Louis	MO	63101
JOHN J. BROWN	1000 1st St.	St. Louis	MO	63101
JOHN J. BROWN	1000 1st St.	St. Louis	MO	63101

[illegible]









# Announcement

We are pleased to be able to announce the relaunch of  
**Scala MultiMedia MM400 for Amiga!**

We have arranged global distribution of Scala MultiMedia MM400 through Software Hut Inc. and their dealers. This means the full version of Scala MultiMedia MM400 is finally available with a full manual. Listed below are just three of the companies supplying it! This means that users of the recently released CU Amiga version of MM300 can now finally get manuals for their product and upgrade at the same time. So what are you waiting for? Contact your local dealer now, and get hold of the full MM400 package at the *lowest ever price!*

UK £89.95  
US \$149.95  
Canada \$229.95

This is the only MM400 product to be officially licensed, and endorsed by Scala Inc., so why not give them a call and buy the single best application on the Amiga for video titling, multimedia and stunning on-screen effects!

Software Hut Inc.  
313 Henderson Drive  
Sharncliffe  
PA 19379  
USA

Orders: +1 800 952 6442  
Info: +1 610 588 5700  
Fax: +1 610 588 5700  
Email: [softwarehut@comcast.com](mailto:softwarehut@comcast.com)  
Webpage: [www.softwarehut.com](http://www.softwarehut.com)

World Science Ltd.  
Q House  
Trison Way Business Centre  
Humberstone Lane  
Leicester  
LE4 9HA  
UK/Europe

Orders: +44 1162 463600  
Fax: +44 1162 463601  
Email: [sales@worldscience.co.uk](mailto:sales@worldscience.co.uk)  
Webpage: [www.worldscience.co.uk](http://www.worldscience.co.uk)

Randomix Inc.  
R.R.No. 2  
Tillamook  
Ontario  
Canada

Orders: +1 800 958 6371  
Fax: +1 800 958 6376  
Email: [sales@randomix.com](mailto:sales@randomix.com)  
Webpage: [www.randomix.com](http://www.randomix.com)





# It's All Gone Swirly!

Right from the start, the demo scene has been at the cutting edge of Amiga software developments, pushing the hardware to extremes to perform the impossible. But why? And what sort of shape is the scene in these days?

**H**arrowd – OIL, DR, DELL? That is noise you wouldn't expect to hear from a Commodore 64, but some time in 1986 a couple of inventive coders managed to get it to do so. A manly striding series of acid-swing beats were put together with a rough and ready rendition of Spaxx's 'Hemlock', a big rave anthem of the day, and squeezed into a modest C64. Previously, in my experience, 'demos' had been twee little combinations of bouncy coloured bars and jingly versions of cheap tunes. It was the first demo I ever saw that measured up to established forms of art and entertainment. I was excited.

achieving impossible audio-visual effects. From these initial inputs, mega-demos emerged as multi-disc extravaganzas designed purely to make you go "Wow!". But enough of the old days. Recently 'the scene' has slipped from greenroom to many Amiga circles, so has it had its day or is it just that it's gone out of fashion? We spoke to members of Noise Add, now the UK's only active group on the international scene.

Talget of Noise Add: "The size and feel of the scene has changed dramatically. The Amiga is now approaching (or has approached?) the cult status era, and as a result of this, a lot of isolated individuals have moved to the PC and/or moved into the commercial arena. The global spread of the Internet has brought the remaining people together in ways never before possible, but at the same time there is always a destructive and pessimistic element within the scene that sees doomgazing as their only 'creative' input. A shame."

"The scene is in a way a reflection of the Amiga hardware. When the machines were being produced and sales were booming, the scene flourished and popularity grew, but when fortunes took over and the uncertainty set in, people moved away in droves and others refused to take the plunge and buy into a financially unstable platform, and so went toward the PC."



## In the beginning

The arrival of the Amiga in millions of desktops around the world provided a bigger, better, brighter stage for these quirky code artists. While the point of many demos was still to act as a flashpoint and to cracked software, legitimate coders began to distance themselves from the pirates and put their efforts into

"On a happier note, the quality of work now produced is certainly a lot higher than back in the late 80s/early 90s but that's only to be expected really as we have more resources at our fingertips. The thought of producing a demo purely to be run from hard drive would have made most people feel over with shock in 1990. On a sadder note, the quality may be improving but the quantity is shrinking."

"Old hands carefully talk about the 'old days' in an affectionate manner and it's true, the early 90s were the best years for a lot of people, simply because the scene was so active, but times change and we must change with them. People are still supporting the Amiga and there's no reason for that to change."

## Down of the Net

The Ripper: "Interior is the name. The history of the scene can be split into two eras, before and after Internet. Before, contacting people was something extremely difficult and expensive, so, all members of a crew would have to live if not in the same





town, in the same area. Now it's possible to have productive groups featuring members from different countries. Maybe the 'spirit' isn't better, even, but I trust in progress, and I believe nowadays..."

DarkMood, 30, 1995. "In these early years, the scene was a forum where all hobbies were made each day. There was a feeling of pioneering, of doing something none had done before. To push the limits of what was possible. Besides the scene, in real world, oppo in code and as an. Now, we've tried most of what can be done, or at least my think so, so demos tend to look like one another, and it's hard to leave for me and other behind nostalgical, to feel this 'rush' in the stomach, when seeing a new demo. Still, the scene continues to fascinate us, and we're a kind of community where everybody knows each other."

"In 2005, the scene hit an all time low in productivity and members, but after that, we've slowly become stabilized again, and now the scene is quite an active place again, thanks to. For me, the best scene year was 1989 though."



FERNAN WE MADE IT TO THE 2005 RED SECTOR 20



## But why?

So at least it's out in the open that it's not what it used to be in a number of ways. Why then do these still involved with it?

The Rippers, I started everyone 'learning' was a way to get famous, to get my work appreciated and get respected by other people, even if only in a very restricted field. Now that I'm 34 years old, working mainly believing in 'differences'. Working in a form of art which is not official or 'recognised' using a computer which is still chosen and not imposed by the market, and getting in contact with people from everywhere. Just think that in these 30 years I've had the opportunity to share ideas with scene people from countries such as Brazil, Israel, South Africa, Saudi Arabia and even Korea!"

Clara of Merve-Rox. "I understand people who aren't interested in them, especially those who weren't in the early 80s when demos didn't look nearly as impressive as they do today. Then again I don't understand

people who are interested. Don't understand myself when I guess."

Chris, 31, says the main reason why he's doing demos is for the fun of it. "I know that's the case for us. Working

harder we are able to do the Assembly 20 years party is certainly happy and trying to please everyone when it's looking at some demo towards a goal is sheer madness. For example, a more more than 1000 is almost all of us are in full time employment so it's just a way to relax."

"The financial rewards for artists isn't even half a break even situation, knowledge, so there's certainly no profit for the scene. There are also the rewards of 'fun' with the scene, something we're only really starting to experience recently with the 20th demo festival. There's also the immediate buzz you get seeing your demo shown on a huge projector screen in front of hundreds of people. It's certainly a great feeling when everyone's taking about a project on which you've worked so hard. Being in a way around right enough."



## The piracy connection

Crack exploits... initially they were not and the scene. The demo scene really evolved from the 'warez' scene, from the small tapes (sometimes) presented as the front of cracked programs to show off the name of the group which cracked the game.

These small tapes then expanded into floppy discs in their own right, through to single file distribution (CDs, which were used as a compilation by groups such as S.M.I.) to today's downloading. Many disks with as much content as one or two disks, or even more, are sold for an ever increasing amount of disks. The final progression is we see the demo scene today, producing large hard drive-only productions.

The heritage still exists though, as groups still make tapes today. The parties still hold 441 and even 48 inch samples, to see how much people can cram into a set limit. There are often great feats of programming, and some groups specialise in these and not 'full' demos.



## Ten 'things' about the scene... according to Tango of Nerve Axis

1. It's not a geek thing. We are by and large (body) normal people with a life outside of the monitor. An interest in computers is becoming more the norm for the 90s individual, we were just ahead of our time in taking it up as a hobby.

2. If you can program, write music, draw pictures then load up your Amiga, get in touch with someone on the Internet and become involved in the Amiga scene. It is not just limited to some small clique that accepts no new members. New talent is always welcome and with a decreasing user base I think the Amiga needs all the help it can get. Remember, everyone started off somewhere with a vanilla 6800 (or 1000) so don't be put off if you don't think you're good enough. Forward!

3. Please don't confuse the creator of demos with creating. They started from the same point but the divergence has

widened as years have gone by. Now a gulf separates the two. At the moment drawings and demos are pretty much the only thing keeping the Amiga scene in one place.

4. Attend a scene party. Whether it be in your own country or overseas. Avoid the kids playing network Quake and the socialising. Parties aren't just about staying at someone's house for 2 or 3 days, it's about meeting the people you talk with on the Internet, or other members of your scene who live in a different country. Try it. It truly is a superb experience.

5. Read the disk magazines available, such as Pressure, BOM, Generation, Scenicline, Showtime and The Official Eurocharts. These will give an insight into what happens, who are the movers and shakers and upcoming events. It certainly can't hurt, and in some cases you may be ideally suited to

contribute. Plus it should shock most of the new UK people not realising that most British Europeans speak and write better English than half of the UK.

6. Nerve Axis is currently pretty much the only true Amiga scene group left and actively supporting and releasing in the United Kingdom any more. I think it's a shame, remember when I ran *AmigaWorld* which was a scene title as opposed to other than Nerve Axis. At the moment it's only some time before 1995. Perhaps.

7. The scene is still alive. So why don't the commercial side of Amiga realise this? All this talent sitting here and doing it for fun, instead of using old scenes to show off the Amiga in a shop window, why not get in contact with a 'scene' group and commission them to design a fullscale demo to run and make prospective buyers go "Wow". Most of these guys can

be bought for little more than a bottle! Well, maybe there is a Code as well. He also cater for children's parties too.

8. Not everyone involved on the scene is under 16. Most of the 'Tag' names will arrive and enjoying themselves have been in this game since they were kids. It's one of those. Pretty much every other member of Nerve Axis is the same. We've grown up with this machine. Some of us can even grow facial hair! Code.

9. Hey World Of Amiga. Give the scene some love. Lend us your ears instead of simply talking with the journalists. If I fill in on more questionnaires about the future of the Amiga only to find no feedback and nothing changes I think I'll scream. Take notice of us as we're the ones who keep buying the new technology.

10. Don't think of a number ten. Sorry.

## Where to next?

What of the future then? Does the scene have one at all?

Chris: "The Amiga demo scene is currently developing towards cut states, something akin to that now enjoyed by the CD4. People at Assembly 98 were very impressed at the quality of the Amiga demos and it was in

the comparisons, while a lot of them get many of the supposedly superior PC to show.

"There have already been a couple of PPC demos released for the Amiga, neither of

which are really anything special. I guess with the new processor, it's a learning process and everything really has to start all over again. I can see the demo scene sliding somewhat - into a PPC direction and also many people sticking with the 'Classic' Amiga. I foresee the Amiga still being around in the parties in five years time, and hopefully even longer. While the new machines? and the PC, get more powerful, there will still always be the challenge to see what people can do with the 'limited' Amiga."

If you'd like to get in on the scene, make yourself known to any demo group you like the look of (designing the demo) sendme docs for contact details as they're always open to newcomers. Specifically, PPC are after a talented pixel graphics person whether you're a coder, a graphic artist or a musician you'll be welcomed into the fold, providing you bring something to the party! ■

Tony Hengen





# Screen Scene

Time for us to put away our joysticks and turn the volume way down - this is the last ever Screen Scene. CU's longest running section finally goes to that great final level in the sky.

▶ **Take It All Away** (Things that are back in 1991)



**C**U Amiga Magazine has two survivors from a old class of Commodore User: News pages and Screen Scene. We're not sure exactly when it all started because records do not go far enough back into murky prehistory to report the origins of this section, but it has been going for almost fifteen years. That decade and a half represents the bulk of the history of the computer game.

Sure, many of us walked our childhoods, moving off school to play Speed Racer a few years before that, but Screen Scene has been here to watch computer games flourish from 8 colours and 56 to the 34-bit CD-ROM games of today.

Really as the years have gone on, more and more of the must-see developments have passed us by, as modern games designers jump onto the latest technological marvel to show off their powers.

About a year ago Screen Scene underwent a significant change in attitude. The old attitude was good for the class of games but not for the more recent, leaner.

Instead of taking whatever games were offered to us by the less interesting games houses, we decided to start the class of games houses that second rate games houses, and put out the best.

gamest talent of the Amiga wherever it may be found. We are glad to report that we found it everywhere. We have been some truly exciting designs, such as Explorer 2180 and Foundation, some amazing graphics from the likes of Genesis

Special and Nagato, and some amazing game engines like those in Landale and Virtual Grand Prix.

In some ways, the games scene of the Amiga today is better than it ever was, as at least people have started to upgrade their machines to a level capable of giving games makers the freedom to create the

games they really want to write. We've seen some truly excellent games recently, with more to come. They haven't been plentiful, but their great the size of the market is more than we could expect and I'd like this opportunity

to say a big thanks to all the game developers out there who have played away writing some brilliant games that would probably have made a lot more money elsewhere.



▶ **Enduro** (from the Atari 2600) is one of the best games to all the 1991 (year)









# Sixth Sense Investigations

■ Price: £29.99 ■ Available from: Epic Marketing Co 01793 490988

It's too early to start proclaiming a renaissance, but it is at least fair to say that graphical adventure games are starting to enjoy a bit more respect again these days.

**W**ith Big Bad Adventure and now Sixth Sense Investigations, those who have just completed Monkey Island for the 25th time at least have a few more options. Sixth Sense was actually released some time ago on floppy (many of them), and is finally seeing a proper CD release complete with full speech, not to mention extensive hard drive savings.

## In case you forgot

The full graphical adventure evolved from the impulse to get away from all-text adventures (which could be exquisitely crafted pieces or quick and dirty diversions - see the May 1999 issue for more details) or misadventure! text graphics games. Ben's King's Quest is typically identified as the mould-breaker, but even it relied on a good deal of text input. LucasArts's SCUMM system is considered by many to be the perfection of the form - a GUI where characters can be moved simply by clicking on a destination, where inventory management is easily done by scrolling around a list, and there is a small on-screen list of commands - usually very simple, "talk to", "use", "give", "assemble" and so forth. *Conscience* or not, SCUMM games also tended to be quite whimsical in tone.

Sixth Sense follows very closely in those footsteps. Further, it adopts the "neat" philosophy of some of the LucasArts games.

most notably Day of the Tentacle. It is impossible to be "titled" or to hit a dead-end in the game. This can be a blessing and a curse - more on that later.

The idea of the game is innocent enough. Your character, Frank, is the proprietor of a small detective agency. Your stuff consists of a peaky mouse that lives in the footboards, Ben, a somewhat voluble but intelligent individual with the ability to tap into the spirit world to help you solve cases, and Arthur, an inhabitant of said spirit world. But you've got the big pipe crammed in your face, so that makes you the ringleader of the ragtag group. Later in the game you become Ben for certain scenes.)

Although the packaging is rather crass-looking, the instruction manual is bound in the shape of a detective's notebook - a very nice touch. The interface is rather small, unfortunately. Further, it's a very good idea to both read the manual and watch the game's intro closely. They provide very different sets of information about the game world, but understanding both is necessary, because very early on the game presumes you understand who is who and what history you have with them.

The CD edition of Sixth Sense adds high-quality digitized speech to virtually every bit of text encountered within the game. This replaces the normal text display at the floppy version. The agents unleashed on the world in this game won't be giving your favourite radio performers a run for their money any time soon - in general, the job they do is more or less adequate, although there are a few places where the actor didn't grasp the context of his line and so spoke it with the wrong emphasis, and other places where the speech gets a bit mumbly and you wish you'd turned the text display on. You



can disable voices at any point during the game, but if you're in the middle of a long exposition there's nothing you can do but sit and wait. A "voice and text" option menu has been slip. And then there's the inescapable transformation that was done on Frank's voice - on the CD it is toned both to its original form, and is a slowed down version to give him a deeper voice, but it's very obvious to the ear that it's exactly what has been done, and it's very irritating. And Frank says a lot of irritating things, so it's only made worse.

## A Difficult Assignment

By the developer's own admissions, Sixth Sense is quite difficult. They didn't want any one to feel they hadn't gotten their money's worth - in fact, the authors claim that even with a walkthrough in hand, completing the game takes between 6-10 hours! The game is fairly steep, though - most games, regardless of difficulty, present a few "warm-up" scenes to build comfort and confidence with the game world and the story, but Sixth Sense skips all such luxuries. (There's a locked door that can't immediately be opened in your own bedroom, for goodness' sake!) There is certainly an epic adventure feel, however, especially when you are able to step beyond the bounds of the conventional world and head into one of the two more unusual realms - that of the spirits or that of the options. It's not very likely that



■ The agent is in a "bad" state on his last mission. I don't think I want to know...



# SIXTH SENSE INVESTIGATIONS



you're the type who picks up a new game and just throw a weekend that you'll be doing Monday morning. It's still unfortunate that the "pro-game" wasn't a bit more forgiving because it's nice to feel an early sense of accomplishment before being thrown into the story proper. For example... in *De McCracken*, LucasArts's second SQM game, the title character had to face such challenges as retrieving a cash card from under his desk and finding his remote control under the sofa cushion, where else? before tackling the larger issue of saving the world from alien mindbenders. I don't feel I was treated to such a warmup, however... you walk out of your office with a few items in hand and are suddenly on the new game map where a half-dozen puzzles await you and it's not at all clear in which order you should try to solve them.

*Sixth Sense*'s interface is about as straightforward as they come — nice commands, plus an implicit "walk to." By default,

the new "Vega" system, works quite well, but there were a surprising number of locations that the main character doesn't walk to properly — taking a detour only to turn around again. This happens most noticeably on the main map screen, a nice addition to a game like this one, where each location you can visit (in the early going, such places as a laboratory, a used car dealer and garage, a toy manufacturer, a cheese shop) are shown roughly to scale on a scrolling map that you can take Frank down.

I was pleasantly surprised with the quality of the graphics in *Sixth Sense*. While it's obviously derivative of the LucasArts style, *Sixth Sense*'s artists had the good sense not to simply clone it wholesale. The art is pleasantly steeped in fantasy without being overly gaudy or distracting. (The comic proportions of Ben's slouch and Frank's pipe were a bit annoying, though.) If only the animation matched the quality of the still images... Characters don't walk so much as glide through the game, and even then not always smoothly — such as when Ben sets off on his first assignment of the game in the early going.

## Ja, Funny!

What would happen if a group of Germans and Italians got together, wrote an adventure game, and then had it translated into English? Well, *Sixth Sense Investigations*, of course! The now-famous *Jenica Transistor Organization* (JTO) has a Herodian hand in the conception of *Sixth Sense*, but there are quite a few reminders that what you're hearing for reading. If you can't take the voiceover probably didn't come from the pen of a native speaker.

Even the game's promotional materials have that "straight from the translation dictionary" feel — "The base construction tells of a lively young guy who has the ability to

communicate with the spirit of a sarcastic man." But hey, sometimes a bit is a bit no matter who wrote it first. "Hilaric" quere are waiting for the detectives, for example the investigation is a cheese strange."

The verdict on *Sixth Sense* is that, overall, it is a solid effort. The "no-kill" policy creates a serious problem that I don't think the game designers fully appreciated, however. In a game where one can make fatal or "no-win scenario" mistakes, it's possible to learn from those mistakes. ("Oops! The house blew up when I turned the lights on. I guess I'd better make sure the gas isn't stuck on before I do that next time.") In a game like *Sixth Sense*, however, that can't happen. One way to solve that problem would be, for example, to have the character say "I don't think I should turn the lights on — it smells like gas in here!" Unfortunately, in *Sixth Sense* there aren't many "I can't do that, but here's a clue" clues. Typically, the game just feeds you a stack "I can't find what to do that thing" line which is fantas-

It is that a solution based on his head... or is he just pleased to see you?



sally unhelpful. And despite the manual's far warning that the game uses "a really sick logic", it doesn't explain that said logic may not be very clear to you even after you stumble on the right solution. For example, if I tell you that you can put the piggy bank but not the tennis ball into the barrel of acid, could you tell me why? I can't tell you why either. And it doesn't mistake my well — I said, *blast*!

An unlimited lockstone-capability rounds off the package. The focus in *Sixth Sense* are there, but they don't step in from being a pleasant, even reusing game once you get into a rhythm. The CD version represents superior value if for no other reason than convenience — my guess is that you won't want to leave the speech on full-time. ■

Jason Compton



the pointer on-screen acts as a "walk to" indicator but when placed over an object or person, it switches to the "most likely" action, such as a button, talk to a person, take for many other objects, etc.) In this way, the interface is something of a synthesis between the SQM and the Sierra interfaces. Most of the time the game, written in

## Sixth Sense Investigations

Adventure	100	100
Logic	85	85
Cost	200 (100 if imported)	100
OS	Any	100

### FINAL

Score of 83 out of 100 is a really handsome score for the world of adventure gaming.

83%



# X-Men: Ravages of the Apocalypse

■ Price: £18.99 ■ Developer: Zero Gravity ■ Available from: Alive Media Soft ☎ 01623 467579

**Marvel Comics' famous mutants make it to your Amiga, by way of this commercial Quake conversion.**

**I**t might seem obvious for an X-Men licensed Quake conversion to let the player play as an X-Man, but would be a bit of a waste of the licence fee if you never actually saw the licensed characters short of looking in a mirror. Instead, Zero Gravity have come up with an appropriately convoluted plot about a pair of superpillars who are planning on taking over the world with an army of X-Genes. This gives you the opportunity to fight famous X-Men characters and gets all those licensed images on screen as often as possible. The plot seems like nonsense to me, but then X-Men is not my type of comic strip and I concede that *Cerebus the Aardvark* might be less appropriate for a Quake total conversion.

*X-Men: Ravages of the Apocalypse* is graphically well put together, and manages without too many halfs measures, keeping the speed up. Weapons are all upgraded and look pretty nice, and the character graphics are impressive. Level design does not keep up to these standards, alas.

Although professionally done, they are with a few exceptions rather uninspiring, with little of the clever constructional trickery which marks a really good Quake game.

The biggest problem most people will have with X-Men is that it is damn hard. Even the weakest villain is likely to take a couple of hits from your best weapon, and their superpowers can make them really tough work. Storm can summon up winds to blow you around the place, Iceman can temporarily freeze you, and Wolverine keeps getting up after you thought you'd killed him. If you aren't conversant with circle strafing or, heaven forbid, use keyboard only (some people do) just forget about this game, you'll be dead before you know what's happening.

On the PC, a custom launcher is used to configure the Quake engine properly to cope with the multi-player section. This allows you to go X-Men against each other using their superpowers. This is much the best thing about this game, but unfortunately without an Amiga version of the custom

► In my, short demo there I shot some...



launcher, you can't choose your character. Zero Gravity told us they love the idea of X-Men on the Amiga and will be sending them the codes to make multi-player work, as expected in Amiga launchers for this year.

I'm not hugely impressed with X-Men: Ravages of the Apocalypse. It's definitely not rubbish, and if you are an X-Man fan you are certain to appreciate it, but for most people, until multi-player is working the CD Superior winning Time of Reckoning disk bundled as a launcher will actually be a lot more fun. **82**

Andrew Kurn

## Quake: Resurrection pack

■ Price £25 (£50 with Quake)  
■ Available from: Alive Media Soft. ☎ 01623 467579

**Getting bored of Quake? The Resurrection Pack aims to bring it back to life.**

**H**ere's the deal. Twenty-five quid and you get Time of Reckoning, Q-Zone and Malice. Another twenty-five and the game's yours too. Q-Zone and Malice are Quake total conversions, while Time of Reckoning - bundled to make launching them easier - is a collection of Quake add-ons with an easy flow and.

Malice was reviewed in the June issue at £15, and it got a Superior Time of Reckoning got a Superior last issue at a tenner. I'd say any Quake owner ought to get both, meaning Q-Zone comes for free, for a rate given that it is the worst of the bunch.

I won't go into detail with the two I have already reviewed, but to recap: Malice is Quake plus, with external views, vehicles, superb design, lovely graphics and a narrative with cut scenes - probably the best game on the Amiga. Time of Reckoning is a

collection of vast scope which makes games of Quake exponentially variable. Q-Zone is a much more Quake-like conversion than Malice, the only obvious difference being four new monsters and a new weapon which fires nine stars. Level graphics are often ugly and design is all over the place, with signs of rushed work (texture peeling) in places. Probably the weakest commercial add-on I've played, certainly less interesting than Pentium, a shameless conversion included in Time of Reckoning. The only really good part is the deathmatch level

► In other words the whole set will come with Quake? It would only happen in a complete game.



set in a jumbo jet!

Thanks to Malice and Time of Reckoning, the resurrection pack certainly does what it sets out to do. If you haven't got Quake yet, £50 with those two bundles should not be missed. If you do, you can think of this as Q-Zone for free when you buy Malice and Time of Reckoning. Either way, a recommended purchase. **93**

Andrew Kurn





# Tips Central



Firstly I'd like to thank CU for letting me be part of the crew, you've done a fantastic job and I hope to see you all involved with the Amiga in the future - 'We need dedicated people like you!' Now for the last solutions, this side of the millennium anyway.

## Sixth Sense Investigations

*Is anyone as far as Town City, but now I suddenly have no idea on what to do. Please help!*

**Phil McCracken, Belfast**

I'll try to give you a hand push then. Go as far to the right as you can on the screen with the statue. Use the flashlight, and a speaker on the statue should start making sounds. Answer all the questions as was you want, and just say like a baby until they let you in. Now talk to Mr. Peasano until you have nothing more to talk about. Grab the keychain and the bottle before you leave for Glen's store (it's the only one that's open).

Open the only pair he has on display before you steal his account book and the newspaper. Use the book to the policeman hiding in the shadows of the statue. Then you have to free the guy stuck in prison. To do it you have to go back and forth between the cell talking, until the guard feels safe. Now use the scissors on the desk to get the keys for the cell door. Free the guy and go to the

bank. Then you have to head back to prison and pick up the clock on the wall. You might grab the glass on the desk while you're back there, as you'll need it soon. Back outside the bank you'll meet the fugitive, and BARRY! As a last hint I'll say there's an envelope in the machine, and some sticky fingers might help you grab it.

## Ultima IV

*I've found seven pieces of the missing map but now I'm stuck on level two of Dungeon II being unable to get any further! Please aid me in my quest.*

**Jon Maple, Gloucestershire**

The map piece can be found in Dungeon II floor. To going to level three where you'll find the Hydra's Chamber, and in it a secret door hiding what you seek.

## Curse of Enchantia

*I can't get past the part where the sand monsters come up from the ground. Please help!*

**Gill Bates, Dorset**



You need a hint my friend! You'll find it by following this procedure: Go to the cave with four holes in the wall. Look into the holes and something should pop out. Now look into the far right hole and you should see some traps. Use it with the sawnwood I hope you already have in your inventory, and you've made yourself a mask.

Go to the 'Computer Cave' and look into the hole in the wall. There's what you need. Now take the computer and head for the cave with the plant. Stand behind the plant and throw the computer. Enjoy the ride and pick up the magnet when you land. Back in the cave that used to be the cat with the computer, use the string with the magnet, and throw it into the hole. You now have what you need.

## Quest for Glory - Hero's Quest

*I can't get in to see the harem. The guards tell me "you need the harem permission". I've selected my character to be a fighter. Please help.*

**Steve Gingsby, Hereford**

The harem doesn't see just anybody. You'll need to prove that you're interested in his women. If you ask the guards about the harem and all his problems they might eventually realize that you might be able to help him solve some of them. Ask about the harem, his son, his daughter, Hozik, Babeyaga, and about big snakes. Now you should get it!



## Simon the Sorcerer

*How do I get into Golam's cave by the waterfall? He just keeps saying "My Mum always told me not to party with strangers!"*

**Roger Bannister, Nelson, Mordway**

Well, this is a tricky one. It's more than tricky actually. It's impossible! You're not supposed to get in. What you can do is give the Golam a nice jar of Swampy's Stew. He'll give you his fishing rod in return, as why don't you try your luck fishing?

## Zak McKracken

*I have the blue crystal and the crystal shard, but how do I get my hands on the crystal in Mexico? Also, what do I do in Stonehenge?*

**Sam Boon, Perth**

In Mexico find your way through the maze to the map room, where you'll find the crystal. Now use the yellow crayon on the strange marking, and draw the symbol from the huge statue on Mars. At Stonehenge try using the blue crystal on the altar stone.



# Founding Worlds FAR 4 Explorer 2260 diar

From the start, designing Explorer's look has been a unique challenge. With a huge game universe, its visuals couldn't feel mundane... graphics artist Rob Asumendi takes you through the pitfalls and surprises of bringing it to life.

**F**ew projects are more rewarding or frustrating than designing the future. Theoretically, there are no limitations to what goes—creating alien spaceships, and intergalactic battleships makes for much more artistic freedom than you'd get rendering, say, a racing game. Since aesthetics don't apply in space, a ship may be any shape. Alien architects throw the door open for an even wider range of design possibilities, but in practice, the audience's imagination throws a wrench in the works.

A spaceship needs to look like a space ship. Feedback in the early flight-of-designs phase: "It's not a spaceship, it's an egg on wheels with wings!" The views like Star Trek's The Next Generation and Starline II have opened many minds to very different designs (the natural with their organic spaceships, space-inhabiting creatures, etc.) but a large portion of the creative possibilities remain unseen. This is something The World Foundry wants to remedy with Explorer. On the other hand, if a design looks too much like what the people have already seen, they say, "Hey, you've just copied off Star Trek!" With every new blockbuster film, it gets harder to create an original design. Explorer's graphics artists must compete with the professionals behind television shows and video games, producing ships that are at least reasonably familiar yet unique. Because of the inevitable comparisons to Planet of the Apes 2 duplicating one of those ships, for example, is unthinkable.

The guiding concept for our spaceships remains functionality. Expect to see many "useful" designs and details. Each ship must have an exhaust, landing clamps, landing gear, weapons mounts, power systems, and some cargo space. Some names, like the Muggerson, hold more arbitrary forms, but we humans will spend billions on design efficiency to save positions on production costs. In other words, just like now!

## Anthropomorphic Aliens?

Aliens must also look familiar—in a sense there's no telling what strange and bizarre things could be out there... as you read this,



▲ The Foundry's first attempt at an exploring.

evolution may be creating an intelligent creature that looks like a cat with a 10-foot leg attached. Also Explorer's artists would respect this creature as just a poor robot; they just expect humanoid or animal forms. Some of our needs are a deviation from the norm though, the Star-Dice and the Koro for instance.

The original plans for constructing Explorer's alien midlife when SETI the US-based Search for Extra-Terrestrial Intelligence project told us that they actually had no photographs of extra-terrestrials. That it was no longer... I would have to design their "visual How to do it!"

To begin with, only the Duskless had a required look—large and muscular—but when more of collaboration with Chris. Creative sketches had to be made of such a foreign creature, from almost every angle. A good place to find ideas was the Internet; microscopic images of dust mites and other tiny, tentacle creatures provided the inspiration for features like the spikes, hands, and face. Final sketches were then drawn to scale in all three critical positions (top, front and side). About a Lightyear away later, Explorer's first creature made its way to the





I developed the Galacticus. Listening to Moby's "Normal Heart" album always brings back memories of modelling the Galacticus. As I listen to it for the first time during those long, long hours.

After that the game just kept getting bigger. Some also focus very much more on the effects than the effective but simple Galacticus. Subtle models called for such, both in the style of patching, transformations, MARS, and using a much faster machine. So, it was time to digress – and to turn off the computer.

## Exo-Terracottas

There is no telling what a thorough search of a stored room will turn up. As it happens, mine turned up a box of unused modelling clay and a cheap plastic map. The clay was really for stuff, and the map had a curvature perfect for designing a floor over. In about three hours, the first Moggan was a ghlye creature. He had no body, or head to his suit, but the results were encouraging. A start. History of acrylic painting suddenly seemed to value, as the model transformed from a plastic shape to living colour. From that point, the model was digitized and routed up in ImagePro (the graphics tool of choice, having more for its effect). It goes to show that, attached to them as we may be, our computers are just tools that a landscape or a chess. An enter should

## Becoming a Video Game Artist

### What are the Risks?

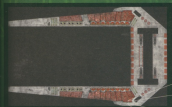
Well, there are quite a few. The style of the game may not be right for you, the team may fold before the game's complete, you will lose several hours of free sleep time per week if you work an average with Explorer, you may not find a publisher or at least a good one, and thus might not get paid, and you must constantly monitor the state of the market. Any of these things may leave you and your artwork out in the cold. The best precaution to take is to research teams thoroughly before committing. Make sure it's a game you're enthusiastic enough about. If a group has a mailing list, join it. That's the best way to find out who they are. Remember, good graphics artists are few and far between. Every aspiring video will want you, but make sure you want them.

### Do I have to know 3D?

This is something I definitely wondered about before joining the Explorer team, as its relevance in the video game market has become even more apparent. The answer might surprise you though, because it's "No". A good basis in 3D is all you need to get started on video games. 3D can be learned in a couple months – my first spreadsheet (pictured here) is proof. This image was created shortly before my joining the team in May '93. Prior to that, I had only used 3D software for logos, but my 3D training dates back to pre-school. Don't be afraid if you don't know the difference between inverted non-planar polygons and Boolean subtraction macros... if you can draw, you'll be a very useful addition to any development team – just as long as you are willing to learn.

### So, should I really join?

If you love doing your artwork, and have considered the idea long enough to ask the question, then yes. Helping to make a video game will refine your talents (and probably uncover new ones), create real goals, give an enormous sense of completion when those goals are realized, and develop collaboration skills – certainly Explorer 2860 has been a collaboration like no other project I've worked on. It can give a younger person a sense of direction towards their career, or allow an older person to finally pursue a lifelong interest. Both will make new friends. A great opportunity in your life could be an email away!



store take their respective advantages and disadvantages into account when choosing the right one for the job.

## And Finally, the Introduction...

Only one person knows much of anything about the very movie to Explorer. That person shall remain unchanged until musician Peter Menzies produces the accompanying music, and for good reason. With hundreds of hours spent modelling, animating, lighting, moving, and producing effects, the last thing of And should be to old hat too, while no credits will be published, here are a few technical specs. Each frame is rendered at a resolution of 376X240 in 24 bit colour.

About 18 spreadsheets are present in the given frame, some containing only a few items. Add to that half a gigabyte of 3D or maps, some of which weigh in at 150MB each. Many of these will make their way into the game engine thanks to its advanced loading features. To date, 1500 frames have been rendered out of an estimated 2000. The final product may be downloaded to hard, but early tests are indistinguishable from true colour. Expect action, comedy, drama, fantasy, science, and romance! Well, maybe not, to reach realism, sure that for the next game...

Producing such a large animation really demonstrates the Amiga's need for new processors like PowerPC. Some frames take

an 800% real time per hour to render, making loading and "quick" checks a laborious process. It's easy to get an entry week when rendering, but that's the Amiga still makes a real enough to work on different aspects of the game during that time. From a developer's standpoint, the new Amiga are incredibly useful for this very reason – I for one, hope that development information is made available soon.

This is the final part of the 1280 Data because of the Amiga's closure after this issue. All of us in World Foundry are deeply



Explorer 2860 is the first of the game in Explorer's series, and is the first of the series.

lost. And at this time, the end of the road for the magazine but we'd like to thank you, Andrew, for the rest of the staff for giving us the wonderful opportunity to share with the readers the development of our game and giving it a distinctive logo. The well deserve have any news of Explorer's development with the big Amiga magazine Amiga Format, Globality, old front.

Rob Saunders and The World Foundry



We're saying goodbye, but not before giving you the long-awaited low-down on two of the most eagerly awaited products: NetConnect 2 and The Atto Tower.

# NetConnect 2

■ Price: £59.95 ■ Available: Active  
☎ 01325 460116



Connecting to the Net has never been easier. David Stroud takes apart the software bundle that Active Technology have only just put together.



▲ When using multiple accounts, NetConnect needs to know who you are before it lets you to the Internet.

never know - you might just like the information that NetConnect 2 has to offer.

## In the beginning...

Genesis, the underlying TCP/IP/Transfer Control Protocol stack used to get you connected to the 'net, is a breath of fresh air compared to older versions of AmigaTCP. The comprehensive Prefs program will be of particular interest to experienced users, who may wish to tweak their Internet connection, set up a LAN Local Area Network, create multiple accounts with separate passwords and configurations, or add a few bells and whistles to their default setup.

If more than one person uses your Amiga for connecting to the Internet, you'll be dealing in the sheets after using the multiple accounts feature of Genesis. Rather than forcing everyone to use the same setup, although the same list of websites, IRC servers and email addresses or even use the same ISP setting up separate accounts for each user with different passwords will allow each user to use their own ISP and keep all

their contact information in the Contact Manager separate from everyone else's. For the non-advanced networker, or even the experienced one who wants to see how easy it is to get connected these days too they can argue that it was so much better when you had to do everything by hand, even though deep down they know it's not true, the Genesis Wizard is the business.

Three or four years ago, a package like NetConnect 2 would have been hailed as some kind of mysterious fruit from the Gods (Net Easiest here, perhaps). But then, three or four years ago, notions were the equivalent of Storage Man - banging stones and rubbing sticks together just to make a fire.

NetConnect 2 is an integrated suite of Internet software, covering a range of Internet services - Email, News, FTP, IRC, Telnet, the World Wide Web - all in one fell swoop. NetConnect 2 is to the average networker what a Zippo lighter would have been to Storage Man: powerful and versatile, yet easy to use.

The provided script makes installation a breeze, and allows you to choose which elements and programs you would like copied to your hard drive. Installing the complete package is the best option, even for those who are already 'netted up and familiar with other programs, because you



▲ The bulk of the NetConnect 2 package, the Contact Manager does a sterling job keeping track of your names, addresses, phone numbers, web addresses, IRC servers...

### 01 NETCONNECT

David Stroud gives you an overview of how you can get connected to the Internet.

### 02 GENESIS

David Stroud looks at a brilliant new network router program.

### 03 STORAGE

David Stroud discovers this latest Macromedia computer.

### 04 PREFERENCE

Richard Brannan tells you how to setup a network from scratch.

### 05 ADDRESS

Richard Brannan tells you how to setup a network from scratch.

### 06 ADDRESS

Richard Brannan tells you how to setup a network from scratch.

### 07 ADDRESS

Richard Brannan tells you how to setup a network from scratch.

### 08 ADDRESS

Richard Brannan tells you how to setup a network from scratch.

### 09 ADDRESS

Richard Brannan tells you how to setup a network from scratch.

### 10 ADDRESS

Richard Brannan tells you how to setup a network from scratch.

### 11 ADDRESS

Richard Brannan tells you how to setup a network from scratch.

# TechScene





#### ■ For downloading a contact at first, AmIT? does the job

When loaded, all you need to do is tell the Wizard a few basic details like how to find your modem, the phone number(s) of your provider, your login name and password, and whether or not it will need to set a login script to connect to your ISP. If you're still under the impression that getting connected to the Internet these days is a tricky, time-consuming business, read the "Help by Day" forum.

Once you've configured your setup with the Wizard, loading Genesis itself will set you



#### ■ This window dealing with online is a piece of cake

connected to the Internet for your first online session, simply by clicking the "Connect" button. Once you're connected, Genesis will report the connection speed, tell you how long you've been online and show you a little more information like the setup you're using and the account you're logged in under. This window is configurable, so you can show as little or as much information as you like.

### Keeping in Contact

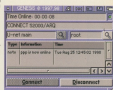
To help you fully experience the wonders of the Internet, NetConnect 3 provides you with a big bundle of software which should leave you wanting for little more than free local calls from your phone company. In all, there are ten applications included on the CD (11 if you count Genesis). AmIT? AmIwin, AmTerm, AmIRC, Microsoft Mailbox, NetInfo, AmFax, AmS and the Contact Manager. In other words, you should be kept busy for a few months. The Contact Manager provides an ideal hub around which the other applications can operate. Voyager, for example, can save

its history to the Contact Manager. Microsoft can use the information contained within Contact Manager's database for emailing purposes, and so on. As it recognizes the multiple accounts offered by Genesis, it's possible to keep your names and addresses separate from those of any other user. On loading, a requester asks you for your username and password to make sure you're accessing your database of information and no-one else's.

The level of integration between the separate programs provided by the Contact Manager certainly makes keeping tabs on all of your information easy, because you only have to look in one place. What's more, you can import existing data from all sorts of programs that you might have already built up an extensive list of addresses in: Voyager, WinFax, Mailly, AmIT? Express, Tivo, Mail, Microsoft, STAs and AmIRC are already supported. This feature alone is a life-saver, as it saves you having to type everything in all-over again - an unenviable task, even if you only have one web site in your Genesis folder or one server configured in AmIRC.

### Manage your contacts

Of course, you'll have to be careful that you don't leave this information available to other users after you've imported it into the Contact Manager. It would be all too easy to forget about that WinFax folder and leave it lying around for other users to import the very same information. Perhaps an option to delete or encrypt the old data files should be included in a future release (remember that deleting a file doesn't get rid of it completely).



#### ■ Before and after the moment of connection - the Genesis GUI is both informative and highly configurable

Is, as anyone who's ever had to recover an important file will understand.

As well as protecting information, it would perhaps be an idea to allow one user to send information across to another user's database, so that sharing information doesn't require each user to enter the information separately. That aside, the Contact Manager provides an essential part of the NetConnect 3 package. You could

### MIME

**M**ail (Multi-purpose Internet Mail Extensions) is a set of standards used when exchanging various types of media over the Internet. Attachments to an email, files downloaded from an FTP site or transferred over IRC - they all need identifying by the computer they end up on before they can be used.

By using MIME, a picture viewer can be loaded to display files ending with ".GIF", ".JPG" or ".JPE". Files which end with ".LHA", ".LZH" or ".ZIP" can be passed to WinZip for unzipping - the list is almost endless and, as you might expect, highly configurable, allowing you to use the programs you have on your system for deal-

ing with the files you receive via the 'net, and add your own defaults if there isn't already one to suit your needs.

The NetConnect 3 package comes with versions of dBASE, Cydonia, CyberOT and CompuLink for dealing with Mpeg, Aiff, Quicktime and audio files respectively, and plenty of other tools are available from Amnet, so with a little effort on your part, you should be able to deal with pretty much any file that's thrown your way, all thanks to MIME.

If you want to read about MIME in more detail, try the Internet Info, available from <http://www.pa.chia.state.edu/edu/faq/mime/mime-faqtop.html>



all for days at a time, entering information into its numerous fields, rearranging groups and subgroups, experimenting with sending and receiving information to and from other applications... but you're not to plug some where and look at all these other programs.

The MME grab program is another key part of the NetConnect 2 package which keeps a list of all sorts of Webpages, and actions that can be performed on them. Although on its own it doesn't sound that interesting, coupled with other applications it springs into life, showing any WWW'd file using the configured tool, without needing any further intervention from the user.

Furthermore, setting up your MME types in Voyager means that AnyIRC, AnyFTP and XNet will recognise and use them, without the need to make the changes in each individual application.

## Integration Fascination

NetConnect 2 is all about integration. That's why it's bundled together at such a bargain price, and that's why anyone who buys it should install everything to their hard drive at least once. (Single, so there are a few glitches with the software, and setting everything up in a hurry is inevitably going to cause the odd crash when you least expect it, but if you take it one step at a time and save the changes you make as you go along, you'll soon have the hang of all this surfing madness. Add to that a few extra resources to spare processor, plenty of RAM and a graphics card providing you with some nice large screens! and you'll be laughing all the way to your online bank.

However, with the level of integration that the NetConnect 2 suite of programs offers, it's a shame that it falls short in some areas. AnyFTP may be good, but it's not as great as



## Individual Programs



### AnyTCP Genesis

- TCP (Transmission Control Protocol) is the common standard used by all computers to communicate over the Internet. Genesis is the latest version of AnyTCP which offers a high degree of configurability and supports multiple accounts.



### Microdot-II

- On- or off-line email and news reader.



### AnyIRC

- Internet Relay Chat client, considered by many to be the best on any platform.



### AnyTerm

- A terminal emulator. Useful for connecting directly to another computer system, such as a Bulletin Board System (BBS).



### NetInfo

- Provides information on miscellaneous Internet services like Usenet, Finger, whois, nslookup and ping. You may never use it, but it's nice to know it's there.



### Contact Manager

- An integral part of the Netconnect 2 package, Contact Manager provides centralized access to Email, FTP and Web site addresses, IRC servers and all manner of other useful information.



### Voyager-ME

- The latest version (2.86.7) of the Web browser Voyager.



### AnyFTP

- For downloading plenty of files, or maintaining a website, you'll probably be using AnyFTP.



### AnyTelnet

- Another program with minority appeal, AnyTelnet will allow you to log on to and work on a remote machine. If you have an account with a university, for example, you could use Telnet to log in and check your mail. Or you could just use it to play MUDs.



### AnyTalk

- Allows two users to talk to each other in real time. A precursor to IRC, and will therefore be little used. But again, nice to know it's there if you ever need it.



### X-Arc

- Downloading files from the Internet, you'll inevitably have to deal with lots of archives. LHA, LZH and ZIP files—they'll all need unarchiving, and X-Arc handles the job for you.



### Dock

- The Netconnect 2 Dock is a configurable toolbar that is loaded to the NetConnect suite of applications; the sits on a public screen and will launch any programs at the click of a button or the press of a keyhole.



### MUI 3.0

- An unregistered version of MUI, used by all the Netconnect 2 programs, is provided on the CD and is the only part of the package which needs registering for unrestricted use. Whilst some people may want to avoid it like the plague, without MUI, NetConnect 2 would lose all of its configurability and integration.



## Step by Step

you're still a little concerned about how to actually get your Amiga connected to the Internet in the first place, fear not. With NetConnect 2, it's this easy:

Install the NetConnect 2 software to your hard drive, and reboot so that the necessary changes take effect. From the Netconnect drawer on your hard drive, open the "NetTCP" drawer and double-click the "InstallNetWard" icon.

First, the test contained in the first window which appears. Turn your modem on, click the "test" button.



The second page presents you with a choice of using a modem or a network card - you shouldn't need to alter the default option, so just click "next".



Select the serial device your modem is connected to ("serialdevice") if using the Amiga's internal serial port, or "serial-external device" if you're using a Serial PCI/ISA interface). The test setting should be left as "D". Next, choose your modem type as described, leaving it set to "Generic" if your modem isn't listed.



The "initialization string" on the following page shouldn't need changing; if you need to enter a string yourself, "ATDT" should be sufficient (unless the manual which came with your modem if you can't find). On the same page, enter the dial prefix (either "ATDT" for tone dialling or "ATDP" for pulse dialling).



Next, you will be asked for three details relating to your Internet Service Provider: The name you use to login, your password, and the phone number. You should have received this information from your service provider when you subscribed.



The "protocol" setting on the following page shouldn't need altering; a most ISPs now support PPP ("Point-to-Point Protocol"). Your ISP will be able to tell you if they support the PAP/CHAP login protocols. Otherwise, you'll need to select the "login script" option.



The login script (if selected) is recorded from this page, which gives you a description of the available buttons and lets you control the login process. Should you need to, you can type directly into the text box to provide any other information.



After you have successfully logged on to your ISP the General dialog will gather some further information directly, automatically filling up the final window, which allows you to view the configuration it has set up, print it, or just save it for future use. You're now ready to connect to the Internet.



It was. You can't upload a directory to a remote site, for example - instead, you need to create the directory first and copy all of the files across afterwards. Still, you've used software like Dapen Magellan, which can treat FTP sites just like any other directory, or FTPMate, which allows you to mount a remote FTP site as part of your system, having to load NetFTP separately from the rest of the NetConnect 2 programs just to get access to a remote file server does seem like overkill. Much better would be the possibility of clicking on an "ftp://" link to bring up an icon on your Workbench screen for the remote site, and add it to the list of available volumes in file requests.

## Get connected too

Having said that, for under \$60 pounds you really can't go wrong. The full-colour, multi-page CD info provides what information you need to get started (although all you really need to do is pop the CD in your drive and the online documentation provided on the CD is both thorough, clearly written and well illustrated, covering not only the basics of each package but more advanced topics such as a step-by-step guide to setting up a Local Area Network (LAN) with Novell - interesting reading even if you're never likely to try).

Getting connected to the Internet has never been easier or more important to the Amiga's future. The Amiga community has gone online, providing those who are connected with everything they need. By sharing information with others, Amiga users are ensuring we have a future. PC owners may outnumber us, Amiga magazines may fold, but the online Amiga community remains as buoyant as ever. Buy NetConnect 2, get yourself a modem and join the rest of us online. I promise you won't regret it. ■

Dave Street

## NetConnect 2

**System requirements:** 68030+ CPU, 1MB drive, hard drive, Internet access.

<b>Ease of use</b>	95%
Install & Configure it, then it takes the documentation into account and helps if necessary.	
<b>Performance</b>	90%
Has the capabilities to use better and will have to give the 68030+ and hard drive.	
<b>Value for money</b>	95%
Good value, especially when it comes to useful features.	

### VERDICT

If you aren't on the 'net already, and you aren't on the phone waiting your copy right now, you're mad.

**94%**



# NewsRog



■ Price: £40.00 ■ Supplier: Questar Productions ■ <http://www.questarproductions.com>

**News reader programmers face a dilemma, either make it easy to use and limit the number of features, or build a powerful program that is more complex to get started.**

**N**ow there is a brand new news reader that attempts to give the best of both worlds. NewsFlag boasts a comprehensive specification, especially for a news program, yet claims to be more user-friendly than most.

First impressions were good, the program installed without a hitch, including some comprehensive documentation in HTML. The documentation is excellent, providing a good introduction to internet and a series of tutorials on setting up and using NewsFlag.

Unlike many programs, you cannot start to use a news reader until you have set up a basic configuration. This was pretty simple with NewsFlag and fully documented in the tutorials. Once you are online and subscribed to some newsgroups, you can choose to download either complete articles for offline reading, or just get the headers for a group before selecting articles to download or read. The integration of online and offline use is very good; you can use both methods in a single session without any change of configuration.

NewsFlag makes extensive use of multi-threading. For example, you can select a number of groups for header download, then select some more groups for full download. While the second batch is downloading, you can start browsing the headers from the first group. You don't even need to wait for a download to finish before you can start reading articles. This multi-threaded approach extends to all aspects of the program. You can have multiple

newsgroup windows open, reading threads in several groups at once (this assumes that your brain also supports concurrent multi-threading and memory caching).

One of the most difficult tasks for a news reader is interpreting and showing article threads correctly. It's made all the more difficult by other people



using broken news readers (or browsers that don't References headers, or have an incorrectly set clock). NewsFlag copes with threading well, with a single key used to both scroll the contents of an article and thread to the next one when you reach the end. As with almost everything else, thread display is configurable and can be remembered when you quit, avoiding the need to save settings each time you change something.

The configuration options of NewsFlag are immense. Although it is easy to set up for initial use, you can spend hours playing with the various filtering, display, killfile and other options. However, it then shows the same problems as most programs with a large range of options. It can sometimes take several attempts to find the place to change a particular option. For example, NewsFlag has a neat filter option to hide signatures, replacing them with a small box that you click on to

show the sig. I wanted to disable this for a while, but whatever I did in the Group Filter window made no difference. Later I found another setting in the global config window. This is a fairly minor problem, but a indication of what's involved with so many options.

▲ The attachments can be displayed inline.

▲ NewsFlag has a wide range of options and a highly configurable interface.



The documentation is provided in HTML, so an option to display scaled-sensitive online

## The Competition

The obvious comparison is with TROR. The interface is certainly more modern, and initial use is much easier. However, it doesn't handle email and has no access port (aside from the basic one from MUA). If you don't need the total control or email facilities of TROR, NewsFlag is a strong alternative.

Microsoft also handles email, and is very easy to set up and use. But NewsFlag is a far more powerful program, maybe a bit too much for the casual news user, but much better for anyone serious about internet.

help, using the browser of your choice or the NewsFlag screen, would be a real benefit. The MUI builds help for the various options and windows is very comprehensive, but there are times you need more extensive documentation. As the provided documentation is already very good, it's a shame that it's not already linked.

NewsFlag is a very powerful, and reasonably easy to use, news reader. If you want news only, say as a complement to 'MM, it's well worth a look. The system requirements may seem high for a news reader, but this is a powerful program and deserves an Amiga to match. If you're still not convinced, have a look at the demo on this month's CD. ■

Niall Beithwaite

## NEWSROG

**System Requirements:** Windows 95/98, 32A, 486 RAM Recommended 640MB Graphics card, 16MB RAM

Ease of use	85%
As easy as a program this powerful could be	
Performance	80%
Does almost anything most people need in a news reader	
Value for money	75%
£40 for a news reader is a little high compared with the alternative offerings.	

### VERDICT

An excellent program for all internet fans

91



# Rexecute

■ Price: £19.99 ■ Supplier: Weir Science  
 ☎ 0116 246 3800 ■ <http://www.weirscience.co.uk>

You can solve problems easily in AFlaxx, without learning system programming in a lower level language like C. This ease of use has its price, so the report of a new AFlaxx compiler caught my eye...

**R**execute does not turn AFlaxx scripts into machine code, although the files it creates are executable, they still need a compiler to work. This is where there is no speed increase as a direct result of compilation, although the compiler removes all comments and indentation, which in itself can give a 10-15% speed increase.

However, there are several other advantages. The compiled file is an AmigaDOS executable. It can be run in ways that a script can't. You can use it as the default tool of a project icon, or give it a tool icon and pass arguments to it by shift-clicking other icons. Provided no script is running, it behaves exactly like any other tool.

Rexecute can produce three different types of file. The most obvious is an executable that can be run from shell or Workbench. It can also compile into a script. Why? Because many programs have the facility to run AFlaxx scripts internally, so you can take advantage of the other features of Rexecute and still be able to run the script from within ImageFX or whatever. The third type of file it produces is a linkable object, usually stored within a link library.

## Not quite right

Link libraries are potentially one of the most useful features of Rexecute, but, and it's a very big but, the implementation has a serious flaw. When you try to include more than one function, either from a single library or from separate libraries, only the first is added to the final file.

Rexecute reports finding and adding each function, but only the first appears in the script. Weir Science were quick to try and help with this, but it's up to the programmer and to fix fast. Until the time this review was completed, Rexecute can be operated from its GUI, from a shell or through its AFlaxx port. The GUI looks a bit old fashioned – it's not even from version 1.0

but it does the job. As well as selecting the type of file created, you can control testing and interrupt settings, which is more convenient than editing the script to make a temporary change. One criticism of the GUI is that because it is not resizable, you can only see the last couple of lines of output in the status window, an option to log this to a file would be very useful.

The shell and AFlaxx control make it suitable for control from an external script or, maybe, very useful if you have a number of linked scripts to maintain. There is a demo

## Link libraries

A link library is a collection of functions that you write once and then call from other scripts. For example, every time you want to open a file for reading you need something like:

```

1 - openFile(Path to 'myfile', 'R') then do
  my 'New message'
end
end
  
```

With Rexecute you can compile this and other routines you use into a library, declare it at the start of your script and call it with:

```
call ReadFile(mylib, Path to 'myfile')
```

This not only makes writing the scripts much faster, but if you ever find a better way of doing it, you simply rewrite the function and recompile any scripts that use it (a make utility would do the last part automatically). This is a very simple example, for more complex functions, the time savings would be much greater.



It may not be the prettiest interface, but it's a simple one that can really save time.

script supplied that shows how you can control just about every aspect of Rexecute through its AFlaxx port. Rexecute is extremely fast, compiling a 100K script (PCGComMail.thor) in less than half a second on my 486/66MHz, and reducing it to less than 20K as an executable. Small scripts do end up larger when compiled, because of the extra code needed to run them from Workbench. The new StarArch program on this month's CD is 18K, from a 5K script.

## Conclusion

I like the concept of Rexecute, but it doesn't quite live up to its potential yet. The GUI is a bit clumsy, although functional. If the link library problem is fixed this would be a much better program, one that I would strongly recommend. ■

Neil Matthews

## REXECUTE

**Score breakdown** looking towards the overall trend on 100, 1-10 for each score on 1-10

<b>Ease of use</b>	85%
The GUI is very straightforward, but needs an improved presentation.	
<b>Performance</b>	75%
Compilation is extremely fast, but the facility to use the library as a module disables use of Rexecute in some situations.	
<b>Value for money</b>	85%
One that most developers for a very small price.	

### VERDICT

If the link library feature could be fixed, the rating would be much higher.

**83**



# Power CD-R Writer

■ Price: £249.95 ■ Supplier: Power Computing  
 ☎ +44 (0)1234 851500 ■ <http://www.power.com>

**Richard Drummond investigates mass storage on the cheap with Power's CD writer.**

**P**ower's CD-R drive uses the same Mitsumi ADAP-CD-2001TE mechanism as Eyetech's EZ-Writer, reviewed last month. Similarly too, it is offered in a range of guises, internal and external. The device on test here is the external version, which is shipped in a slim-line steel case with an external power supply and weighs in at £299.95. It is bundled with Power's buffered IDE interface and cables, the full IDE-Fix software, the MaxeCD CD writing software, and three blank discs. Other external options include the drive housed in a rather nice SCSI Twin-Bay case with either a 2.1GB IDE hard drive (for £429.95) or a SCSI CDx CD-ROM (£299.95).

## Cheap 'n' easy

The advantages of taking the IDE route for CD writing is that it provides a solution that is low cost, simple to install and easy to configure. The disadvantage is that, because of the device's poor IDE interface, a lot of processor time is required to maintain sufficient throughput of data to the drive. CD-R drives need to be constantly fed with data, otherwise the disc being written is ruined - a so-called 'toaster'. To be fair though, similar problems would occur when using a SCSI device if the controller wasn't non-DMA, low bandwidth one like the Aquira.

The case that houses the Power drive is serviceable; it has a small footprint, but lacks the ruggedness of the Eyetech case. A really annoying fault with it is that the connector for the PSU has a semi-internal bayonet. This is obviously not something you wish to happen when writing a CD. The actual

process of writing a CD-ROM drive is a complex one, nothing like the transparent way in which we are used to copying data to magnetic media. Thankfully, the MaxeCD software supplied is excellent. It features a novice mode and context-sensitive help; the latter gives a simplified GUI and is ideal for the beginner and for quick jobs. The expert mode provides the more advanced control over MaxeCD's options.

In operation, the Power CD-R system performs adequately. With an 850 processor and plenty of RAM there is enough CPU cycles left over to do some low-grade multitasking (anything less than 640 though, and your machine will grind to a halt and the disc being written to will suffer). It copes admirably with writing on the fly as well as from an image file. The drive does struggle to reach its claimed double speed writing at times though.

## The competition

The only differences between Power's CD-R system and Eyetech's is the packaging. With Power your £299 gets you the drive, a cheap quality case and PSU, MaxeCD and the four-way adapter; with Eyetech the same money buys you the drive, a high quality case and MaxeCD.

While both these packages offer fair value for money, neither are outrageously cheap. The essential components of both systems are the Mitsumi mechanism, avail-

## EZ-Writer revisited

Last month we tested Eyetech's EZ-CD Writer system. We liked the drive and gave it, in my opinion, a good review. Eyetech, on the other hand, disagreed and made a number of complaints. The bulk of these complaints were rather trivial, but they did object to us saying 'the Mitsumi mechanism has a poor reputation for reliability'. As this mechanism is used in the Power drive, also, I believe this would be an appropriate place to clear this up.

I wish to stress that no problems or faults occurred while testing either Eyetech's and Power drives; the above quote was based on opinion only. In fact, Eyetech claims that Mitsumi have had a record low number of returns with this mechanism. Eyetech were clearly fishing for a Superstar model for their drive, but I stand by my initial review. The EZ-Writer is good - but not exceptional.

Eyetech are now shipping a cheaper version of the drive, too. The necessary EZ-Writer SE is identical to the EZ-Writer package we reviewed, except that it's housed in a slim-line case with external PSU like their EZ-CD SE drive.

able from PC vendors for a shade under £299, and Mitsumi the TAO version of which results in the CD for £249.95. A quote of £249.95 reveals that you are paying at least £55 for the case and any other extras.

There really is not much to pick and choose between the Power CD-R and the EZ-Writer; essentially they are the same package. If you haven't already got IDE-Fix, and a four-way adapter then Power's system offers slightly better value for money. For no money, I would opt for the Eyetech system merely because of its better case. ■

Richard Drummond



## POWER CD-R WRITER

**System Requirements:** See Edge  
 800 L2+, 80 min low 850+ processor & 1GB  
 recommended 10/20

**Case of use:** 10%  
 Easy to install, configure and use

**Performance:** 80%  
 Satisfactory but not writing performance

**Value for money:** 10%  
 Good but not outstanding value

**VERDICT:**  
 Another good entry level  
 CD-R system

**86**



Springer, W.W., R. Boudreau, B.G. Lutz







# Atéo A1200 Tower

■ Price: from £129.00 ■ Developer: Atéo Concepts

■ Supplier: White Knight Technology ☎+44 (0)1920 822321

Is there room in the market for another A1200 tower solution? Atéo Concepts clearly thinks so.

**T**he tower case is perhaps the most desirable upgrade for Amiga 1200 owners. You only have to remember the scene at this year's World of Amiga show when

hordes of avid Amiga users descended on Atari and Microsoft's stands intent on buying the fame for their beloved 1200s. For those who haven't yet released their wallets, there is a new tower on the block from Atéo Concepts.

This newcomer, the Atéo Tower, is well constructed and finished. It has a sturdy set frame, the moulded front is attractive, and the rear slots have been professionally painted. The unusual feature at the rear of the tower is that instead of having slots to accommodate expansion cards, it has a quiet canopy. This is so that the tower can be used with both Zero-card systems – where the cards are mounted horizontally – and with the Atéobus system – where the cards are mounted vertically.

## Tower trouble

When you consider the number of Amiga users who have performed tower conversions, you can see that it's a relatively straightforward task that anybody who can use common sense and a screwdriver can perform. The Atéo Tower is no exception. The instructions provided are rather basic, but they're easily followed with some thought.

The three common problems to be solved when transferring an Amiga 1200 motherboard to a tower case are how to connect the power supply, how to connect the keyboard and what to do with the floppy drive. These problems are confusions of the fact that the A1200 motherboard simply wasn't designed to do anything else but its original case; the different tower packages available tackle these problems in various ways.

The Atéo tower attempts no solution to the first problem: unless you have a Zero-based or the Atéobus system, there is no easy way to hook up the internal PSU. You will have to connect your own connector to the PSU (not too tricky a task, but requires some soldering) or power the motherboard

directly with your original external PSU. You can still use the internal unit to power storage devices and so on, but it is not a perfect answer, since it is some way negates the advantage of having a tower.

The second problem, that of attaching the keyboard, this tower solves effortlessly. The Atéo Tower is shipped with their excellent keyboard interface built in.

Facing this to the A1200 motherboard is a bit tricky – it involves fitting a rather

definitely constructed socket onto the keyboard processor chip on the motherboard – but should provide no real difficulties.

This keyboard interface is one of the best on the market: it works with both Amiga and PC keyboards, offers a sensible keyboard mapping, allows multiple keypresses and provides a reset line which may used with the reset button on the front of the tower.

The floppy drive problem is more of an aesthetic than practical issue. If you install your A1200's internal drive into a tower, the lack of a front bezel leaves an ugly gaping hole in the otherwise immaculate frontage.

Atéo are currently working on a faceplate to remedy this, but the other option is simply to buy a new drive; White Knight will supply one for £30.

The floppy drive problem is more of an aesthetic than practical issue. If you install your A1200's internal drive into a tower, the lack of a front bezel leaves an ugly gaping hole in the otherwise immaculate frontage.

Atéo are currently working on a faceplate to remedy this, but the other option is simply to buy a new drive; White Knight will supply one for £30.

The floppy drive problem is more of an aesthetic than practical issue. If you install your A1200's internal drive into a tower, the lack of a front bezel leaves an ugly gaping hole in the otherwise immaculate frontage.

Atéo are currently working on a faceplate to remedy this, but the other option is simply to buy a new drive; White Knight will supply one for £30.

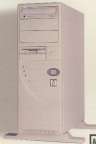
## The Atéobus

One of the most compelling reasons for buying your Amiga 1200 is to provide room for expansion cards. For the Amiga this has always meant Zero and for the 1200 meant buying an expensive Zero busboard, such as those manufactured by Microsoft and IBM. Not any more, however. Atéo have created their own custom bus system, derived from the ISA standard. While this system is not compatible with Zero it is cheaper and faster. Turn to pages 60-63 to read our review.

## Next solution

The striking aspect of the Atéo Tower is how integrated a solution it provides. With the exception of the power connector lead, everything functions so well together. The reset button works into the keyboard interface, the status LEDs work in small PCB clips over the header on the A1200 motherboard and directs the signals to the front panel, even the clock speed read-out works. The Atéo Tower is a professional and well-finished product. While it lacks the feel-good look of the Power Tower and is short of the gigantic storage space offered by Dynaflo's E2Tower, it is nonetheless an attractive option. If you plan to buy the Atéobus system then this is the ideal tower choice. ■

Richard Charnwood



## Atéo 1200 Tower

**System Requirements:** Amiga 1200 custom solo

Value of case	50%
Neatly made construction keeps the price	
Instructions provided	50%
It will not perform what	
Value for money	50%
Comparable to other tower packages	

## VERDICT

It's elegant and well finished tower, especially if you intend to get an

**92%**



# AtéoBus & Pixel64

■ Price: £289 ■ Developer: Atéo Concepts

■ Supplier: White Knight Technology ☎ +44 (0)1920 822321

**The AtéoBus promises cheaper and faster expansion cards for the Amiga 1200 than Zorro. Does it deliver?**

**T**he advent of tower kits for the Amiga 1200 has opened up realms of expansion that the original designers would have never have believed possible. However, the one feature lacking from the 1200 is the ability to use plain expansion cards like its big brothers, the big box Amigas employ a proprietary standard known as Zorro for these expansion slots.

Zorro is an excellent system, although showing its age. For example, its AutoConfig system has always been truly plug and play much to the chagrin of PC users. But Zorro cards are expensive. Not only that, the built-in Zorro buses – such as those developed by Microware and RIM – which enable the use of Zorro cards with an A1 200 are expensive, too. Also, in today's demanding image market, Zorro cards are becoming increasingly harder to find. Atéo Concepts have attempted to solve all these problems in one with the release of their custom bus system, the AtéoBus.

## New from old

The AtéoBus is an enhancement of the ISA (Industry Standard Architecture) bus found in PCs. It does not allow DMA transfers, but the modification does allow a greater bandwidth of 80MHz – significantly better than Zorro. The bus controller plugs into the expansion (trap-door) slot of the A1200, and provides a pass through for any existing card. The AtéoBus is compatible with a wide range of accelerator boards, but you should contact White Knight to be made sure your board will work.

Obviously, the bus system can only be fitted to a licensed-up 1200. The new 1200 Tower (see review on page 81) has been modified to make the installation of the AtéoBus as simple as possible. The problem is that the cards are mounted vertically – rather than horizontally, as expected by most towers. There is a dimension kit available to ease the process of fitting it to other towers. The AtéoBus does not make the whole of the A1 200's motherboard like the Zorro boards did, but the clock header is obscured, a point to note if you already have some hardware that attaches there.

Considering the array of hardware that forms the package, the AtéoBus is surprisingly easy to install. The bus consists primarily of three parts: an adaptor board, a controller card and the hardware itself. The adaptor and controller slot together and attach to the edge connector where your accelerator normally lives, and the controller card plugs into this. The bus board is connected to the controller via two ribbon cables, and is fixed to the floor of the tower with five sticky plastic feet. Any cards installed in the bus, insert vertically. Connect up the power and you're ready to go. Simple.

Some software must be installed into your startup sequence for the system to recognise the AtéoBus and any installed cards. A command called `StartAtéoBus` helps the bus and ties it into the Amiga's normal expansion card system. The AtéoBus also allows software provided on ROMs to be loaded from drives connected to an IDE or SCSI controller card on the AtéoBus. It would have been nice to test the system with more than just the one currently available card. At the moment it is unclear how difficult multiple cards would be to configure or whether the use of several cards would have any effect on bus performance.

Also say that their cards are shipped with all necessary jumpers preset and that the driver software presents IRQ conflicts; this will ensure that there are no configuration problems like those associated with ISA on PC.

## Pixel perfect

The first compatible card for use with the AtéoBus is the Pixel64, a 2D graphics card employing the Cirrus Logic 605434 video processor. It is shipped with 2Mb of memory and supports screen modes of up to 1280x1024 at 70Hz in 8 bit and 800x600 at 99Hz in 24bit.



▲ Just for comparison, the Zorro.

The card has compact, efficient, built-in length

a typical Zorro card has only one connector on its backplate, a standard 15-pin VGA port for output to your monitor. This begs the question of what happens to the Amiga's AHA display modes. Well, Atéo are working on a scan doubler module for use with the Pixel64, but have no release date plan as yet. Until this happens, you will need a separate monitor to display the Amiga's native video modes on. This is not as much of a problem as it seems. The Pixel64 ships with the Picasoft RTG software, most modern software supports interchangeable screens via this. For an OS-friendly program that doesn't, you may use a mode program.

## On the cards

To make the AtéoBus a truly useful system, more cards are obviously required. Atéo Concepts are currently working on a multi I/O board for use with the AtéoBus which should be ready by the time you read this. It will feature two 158Kx200 serial ports and two parallel ports. The parallel ports are intended to be ECP/EPP ports of the type used in modern PCs. This opens up the possibility of using parallel Zip drives and cheap parallel scanners with your Amiga. Other cards planned include a Small computer Ethernet card, a SCSI controller, an IDE controller and a 76 bit sound card. With the exception of the sound card, prices are aimed to be about 150 per cent. Stay tuned to <http://www.atteo-concepts.com> for the latest information.



## The WSpeed test

WSpeed is a benchmarking tool which assesses graphics performance via standard 3D drawing functions. Higher figures mean better performance.

	A	B	C	D	E
3D Pixels	773178	2487033	872647	388873	366433
3D Lines	11626	104482	21179	18180	14136
3D Objects	38888	48715	13383	1888	1888
3D Boxes	4210	748	1214	3413	1248
3D S	788	1441	123	77	388
3D Text	31836	17058	36358	21812	30784
3D Output	688	1812	128	773	444
3D Windows	344	278	381	473	437
3D Windows	552	688	614	668	668
3D Windows	188	84	283	323	308
3D Screens	583	688	584	588	501
3D PB	381	2882	688	1178	682

In

	Monitor	Screenmode
A	ATI200 980/98 CVR/32	PIR 800x600x2
B	ATI200 980/98 CVR/32	CGA 640x480x2
C	ATI200 980/98 Pixel4	PIR 800x600x2
D	ATI200 980/98 CGA	640x480x2
E	ATI200 980/98 CGA	640x480x2

ally there is one supplied with the card, or an MCP's screen manager) to force it to go on a Pixel4 screen.

The Picasso96 software supplied is easy to install and configure. The predefined screenmodes should work with most monitors, but if not, the PicassoPaint program allows the definition and editing of screen modes suitable to your particular monitor. The drag and drop interface is imaginative and concise, and the edit feature makes it simple to define a screenmode, and tweak it only when displayed.

In operation, the Pixel4 is fast. If you are not in VGA then you'll be blown away by

the speed of screen updates, even in high resolution, high colour screens. After running your MonitorWin in 800x600 with 65,000 colours, you'll wonder how you used to survive with VGA. The benchmarking stated in the boxset appear to show that the Pixel4 with Picasso96 performs significantly slower in some tests than the CyberVision4400 card under CyberGraphics. My guess would be that this difference is caused merely because CGX is the more efficient of the two RTG packages; the Pixel4 is the faster of the two when both cards are running under Picasso96. Strangely enough, considering the results, the Pixel4 seems quicker in general



▲ The Pixel4 is place in one of our's towers.

use. The Quake tests really shows where the increased bandwidth of the Pixel4 comes into effect. Quake playing on the Pixel4 varies from a third to twice as fast as the CyberVision card.

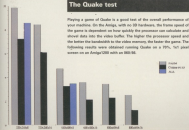
## The choice

The Pixel4 and Pixel4A are an excellent, low-cost package. If it had appeared a year ago, I would have had no hesitation in recommending it to anyone. As it is, if you have not currently expended your £1280, this is the way to do it. However, if you are lucky enough to own a Blizzard PPC card, you may wish to wait until the more powerful BlizzardVision card appears. Still, even if you have a Blizzard, you should still consider the Pixel, since it promises a cheap way of adding ethernet and a 16-bit soundcard, traditionally expensive add-ons for the Amiga. ■

Richard Drummond

## The Quake test

Playing a game of Quake is a good test of the overall performance of your machine. On the Amiga, with no 3D hardware, the frame speed of the game is dependent on how quickly the processor can calculate and shove data into the video buffer. The higher the processor speed and the better the bandwidth to the video memory, the faster the game. The following results were obtained running Quake on a PPC, left pixel screen on an Amiga200 with an 800/60.



## AmigaBus & Pixel64

**System Requirements:** Amiga 1200 or a faster card, a compatible accelerator and 1MB fast RAM.

**Value for money** 85%  
Setup/Install was a breeze. The Picasso96 software is simple to configure and use.

**Performance** 85%  
With only one card available, it is difficult to judge the performance. The Pixel4 offers good but not outstanding performance.

**Value for money** 85%  
The cheapest way to get 16-bit graphics on an Amiga, with some cheap extras to follow.

**VERDICT**  
A flexible and cost-effective way to expand your Amiga.

**92%**



# Kodak DC210 Zoom

■ Price: £599 (street price £540)

■ Developer: Kodak Digital Science  <http://www.kodak.com>

**Kodak's highly acclaimed mid market digital camera has become Amiga friendly - but is it all it is cracked up to be?**

**P**ower Computing's budget wonders have led up the lower end of the digital camera market on the Amiga, but up-market it becomes a little trickier to find the right product. The only software support for mid-priced digital cameras has come in the form of the CamConnect software for the Olympus C range and the Minolta DiMAGE 5. Meanwhile, Kodak has just given us another choice with the release of DC210Mk2, a simple utility for downloading images from

the Kodak DC210. Kodak's award-winning camera is only the second megapixel camera to hit the Amiga. The other, the Olympus C1400L, is a very nice camera indeed, but even with recent price cuts has an RRP of a thousand pounds. The DC210 offers 1152 by 864 pixels (about 4,588 shots of megapixel resolution, but we can forgive them) and a 3x zoom with a field of view roughly equivalent to a 28-88mm zoom on a 35mm camera or a 50-100mm on medium format. It has 40MB of storage on a removable card, a 1.8" TFT colour LCD screen, PAL/NTSC video out and so on, all for a very fair price.

The retrospective seems accurate in a range of lighting conditions and white balancing is good under tungsten or fluorescent lighting. The aperture and shutter speed cover decent ranges, and the CCD sensitivity is a respectable ISO/ASA 140 equivalent. The built-in flash will do automatic, fill in and red-eye reduction.

## Liquid crystal

The LCD display is zoom driven, with a ditherer icon for discarding images, a magnifying glass for zoom and so on. In menu mode you can scroll quickly through thumbnails of the stored images and display them at full size, scrolling the LCD screen across the image. In the preferences screen you can choose megapixels to 1024x840 by 480 resolution, and have a choice of three levels of compression. Unfortunately all this functionality comes at a price - power consumption. Batteries are consumed at an alarming rate, so stock up on NiCds and keep recharging. The power supply rather annoyingly, is an optional extra.

Engines are good but not perfect. The control buttons for the LCD are so logical you won't need the instructions, but the power button and the shutter button are so close to each other that you can mix them up, and the lens is positioned too near the hand grip, making it prone to greasy fingerprints. Having the front element of the lens exposed like this is not good, it makes it vulnerable to scratching.



■ Close-up of lens (left to right):  
f-stop wheel,  
high-contrast button,  
high-contrast button,  
viewfinder & magnifier

Image quality is good, with little JFIF artefacting visible on test quality, but better images can be had elsewhere. The lens is soft and it does show in the final image. Kodak are not noted for their lens design, and convenient as zoom lenses are, they are inherently inferior to fixed-lens designs. The Megaflex Series Q-100 sports the rather excellent little Hexanon lens and a better resolution at a lower cost, but is lower specified and, most importantly, has no Amiga software.

The Olympus C1400L remains a better camera in many respects, but is a lot more expensive. At this price range the Kodak DC210 is, on the Amiga at least, unrivalled. Smart, easy to use, much better results than the cheap cameras, and all in all - worthy - just - of a Superstar. ■

Andrew Koon



▲ Best quality with some post processing courtesy of ImagePlus

## The software

Meanwhile Kodak's DC210Mk2 is as simple as it gets. A window displays a list of the pictures in the camera's memory and allows you to mark the ones you want for download. There is as yet no previewing facilities, but the camera can do that for you. You can find the software on this month's CUCD in the mag drawer, and with enough interest Marbles will add more features. As the KodakDC210 series encodes everything internally, I guess this is a simple serial download protocol, so the software will probably work on similar Kodak cameras including those with 1.3 or 1.8 M pixels.



▲ In 200% enlargement there is still plenty of detail

## Kodak DC210 ZOOM

**System Requirements:** 400 kbps, windows

to 40 mb/min

**Ease of use** 95%

Excellent, buttons packed without overloading complex

**Performance** 95%

Good battery, decent image quality

**Value for money** 85%

Good features for the money, a little better than what is available though. Could be better

### VERDICT

For those who want a serious digital camera without paying silly money, Kodak comes up trumps.

**90**



**Prices INCLUDE 17.5% VAT**

## SCSI Hard Drives

3.5" 288k, ULTRA SCSI-2

330 SCSI 2 in Compact with SCSI-2 & 2	
330 330 (300MBps, 15min)	£ 239
330 330 (300MBps, 15min)	£ 244
330 330 (300MBps, 15min)	£ 259
330 330 (300MBps, 15min)	£ 264
330 330 (300MBps, 15min)	£ 269
330 330 (300MBps, 15min)	£ 279

High Capacity SCSI Drives Also Available

## IDE Hard Drives

3.5" 288k, For A4000

Available for delivery from £1500

For the best price on IDE Hard Drives, contact us with your specific requirements

330 Seagate Ultra Data	£ 119
330 Seagate Ultra Data	£ 129
330 Seagate Ultra Data	£ 135
330 Fujitsu Ultra Data	£ 155

High Capacity IDE Drives Also Available

## CDROM Drives

Internal Floppy - 800T for A1200

330 Speed Toshiba 800T	£ 99
330 Speed ATAPI IDE	£ 65
330 Speed ATAPI IDE	£ 89
330 SCSI 2 CD Writer	£ 299
330 SCSI 2 CD Rewriter	£ 359
330 SCSI 2 CD Rewriter	£ 375

For the best price on CDROM Drives, contact us with your specific requirements

## SCSI Cartridge Drives

330 1.5GB 3.5" Cartridge	£ 299
330 1.5GB 3.5" Cartridge	£ 299
330 1.5GB 3.5" Cartridge	£ 159
330 1.5GB 3.5" Cartridge	£ 135
330 1.5GB 3.5" Cartridge	£ 135
330 1.5GB 3.5" Cartridge	£ 79
330 1.5GB 3.5" Cartridge	£ 219
330 1.5GB 3.5" Cartridge	£ 279
330 1.5GB 3.5" Cartridge	£ 239
330 1.5GB 3.5" Cartridge	£ 135
330 1.5GB 3.5" Cartridge	£ 57

## Networking

330 330 Ethernet	£ 149
330 330 Ethernet	£ 119

## Memory SIMMS

330 72 pin 60ns EDO	£ 15
330 72 pin 60ns EDO	£ 30
330 72 pin 60ns EDO	£ 40

## Monitors

330 14" Res SVGA	£ 209
330 14" Res SVGA	£ 159
330 14" Res SVGA	£ 199

**WE ACCEPT:**  
MasterCard  
Visa, Delta  
and Switch  
24 hrs. Exchange on  
Apple/Amiga, IBM  
PC/AT, Compaq



**Power Up**  
Record 9000+  
Power Up 9000+ is a powerful, fast, and easy to use software package for recording and editing audio. It features a built-in mixer, a multi-track recorder, and a variety of effects. It's perfect for creating professional-quality audio recordings.

**Genlocks**  
LOLA 2000 video & video £ 349  
LOLA 1500 video only £ 179

**electro-cho-cho**  
NEPTUN 3.5" 288k  
NEPTUN 3.5" 288k is a powerful, fast, and easy to use software package for recording and editing audio. It features a built-in mixer, a multi-track recorder, and a variety of effects. It's perfect for creating professional-quality audio recordings.

**A1200 & A4000**  
Tower Conversion  
A1200 to A4000 conversion kit for upgrading your Amiga 1200 to an Amiga 4000. It includes a hard drive, a power supply, and a variety of other components.

**Acadus**  
Acadus 3.5" 288k  
Acadus 3.5" 288k is a powerful, fast, and easy to use software package for recording and editing audio. It features a built-in mixer, a multi-track recorder, and a variety of effects. It's perfect for creating professional-quality audio recordings.

**Clearance Software**  
Various software titles available at a discount.

**Specifications**  
If you need technical details on any of our products, call us on 01920 822 321 weekdays. While Knight Technology are unable to provide technical support for our products, we can provide you with the information you need to make a purchase decision.

**White Knight Technology**  
We are a leading supplier of computer hardware and software. We have a wide range of products to suit all budgets and requirements. We are committed to providing excellent service to our customers.

**VIVA de AMIGA!**  
We are a leading supplier of computer hardware and software. We have a wide range of products to suit all budgets and requirements. We are committed to providing excellent service to our customers.

**White Knight Technology**  
We are a leading supplier of computer hardware and software. We have a wide range of products to suit all budgets and requirements. We are committed to providing excellent service to our customers.

# White Knight Technology

**Tel: 01920 822 321**  
9.00 - 5.30 Mon - Fri Fax: 01920 822 382  
P.O. BOX 34, WARE, HERTS, SG11 1TG, U.K.



## LIGHT MY FIRE

**BLIZZARD 500e Power Board**  
2x 120pin 60ns SDRAM, Requires Power Board, Amiga 1200, 50000, For New 500e/5000e PPC products only. Price includes 100% SCSI-2 hardware and cannot be upgraded.

160MHz no 040/500	£ 235
160MHz with 040/500	£ 249
160MHz with 060/500	£ 489
200MHz no 040/500	£ 289
200MHz with 040/500	£ 309
240MHz with 060/500	£ 535
240MHz no 040/500	£ 355
240MHz with 040/500	£ 369
240MHz with 060/500	£ 539

**BLIZZARD 600e+ Power Board**  
Requires 2x 120pin 60ns SDRAM, Requires Power Board, Amiga 1200, 50000, For New 600e+ PPC products only. Price includes 100% SCSI-2 hardware and cannot be upgraded.

160MHz no 040/500	£ 295
160MHz with 040/500	£ 309
160MHz with 060/500	£ 539
200MHz no 040/500	£ 349
200MHz with 040/500	£ 369
240MHz with 060/500	£ 599
240MHz no 040/500	£ 415
240MHz with 040/500	£ 429
240MHz with 060/500	£ 659

**CYBERVISION PPC and B.Vision PPC**  
High Performance Graphics for all Phase 3 PPC boards & the CyberStorm MP3 060

160MHz no 040/500	£ 459
160MHz with 040/500	£ 499
160MHz with 060/500	£ 699
200MHz no 040/500	£ 545
200MHz with 040/500	£ 579
200MHz with 060/500	£ 779
240MHz no 040/500	£ 589
240MHz with 040/500	£ 629
240MHz with 060/500	£ 829

**CYBERSTORM**  
A4000/4000T/3000/3000T  
With 120pin 60ns SDRAM and 100% SCSI-2 hardware, the CyberStorm A4000/4000T/3000/3000T is a powerful, fast, and easy to use software package for recording and editing audio. It features a built-in mixer, a multi-track recorder, and a variety of effects. It's perfect for creating professional-quality audio recordings.

**060 Accelerator**  
060 Accelerator is a powerful, fast, and easy to use software package for recording and editing audio. It features a built-in mixer, a multi-track recorder, and a variety of effects. It's perfect for creating professional-quality audio recordings.



# PD.net

PD.net

The gargantuan legend, Dave Stroud, makes his final appearance for CU Amiga before sloping back to his New Forest cave dwelling.

## Myzar

Type: RCS client GUI

From: <http://patrick.mc.com/Myzar.htm>

Size: 1M

Requirements: RISC, RCS-DBS client (MSDOS or PPC, version 2.7.0.4.0) - available from: <http://homepage.dialnet.nl/~tzwzdy/tw/download.html>

If you've picked up any passing information about "RCS" or "DBS" contents, you could be forgiven for thinking that it's very technical. It doesn't have to be. RCS and DBS are merely management algorithms, used to encode data with a key (in this case, a 58-bit key) which, in theory, would take an inauspicious long time to crack. Distributed.net (<http://www.distributed.net>) are organising the challenge to crack the code and find the key, legitimately, to an encoded message. By running a client for their machine, computer users all over the world are putting the spare cycles of their CPU to good use in an attempt to break the code in as little time as possible.

If you haven't already joined in the challenge, now is an ideal time. The Amiga team is currently in a very admirable seventh position overall

(having enjoyed a short spell at sixth before being overtaken by the "Slashdot" team) and all of the information about the RCS content (what it is, why you should join in, and how to participate) is available from the Amiga RCS effort homepage at <http://homepage.dialnet.nl/~tzwzdy/tw/>.

From these pages, you'll be able to download Myzar, the GUI which makes running the client a piece of cake.

Myzar does away with the need to use the CLI to configure the client. It can be launched from the Workbench screen, or dropped into your Windows screen. It can be launched so that it operates in unobtrusively as possible, or it can open either of two windows - a large one for displaying what would normally be output to the CLI by the client, and a small configurable one, displaying the information in the form of progress bars.



If you have a Net connection, and you're not yet contributing to the Amiga RCS team effort, you no longer have any excuses. PPC owners can control the PPC and DBS clients by launching two copies of Myzar, although there are plans to support both in one executable at a later date. The Amiga RCS team effort needs you, so what are you waiting for? Get cracking! ★★★★★



## ExView 1.3

Type: Graphics viewer

From: Andrew.gib@shaw.ExView.htm

Size: 25K

Requirements: OS 2.04+

You may wonder about the point to get another graphics-viewing utility. We already have tools like Image and Viewed which are quite configurable, and can cope with many different file formats. Why, then, would anybody be interested in ExView? It's not exactly feature-laden: it only shows IFFs (and then only up to 8 bit), and it doesn't yet support graphics cards.

So what's it good for? Well, showing IFFs of course. You don't need to mess about with the CLI. It has an Application, and a GUI, from which you can limit the choice of command-line (hardly for getting all pictures to display on a screen like that of the

Workbench, so that an slower monitor, you don't have to wait for the re-opens to see what you're looking at.) You can also tell ExView how much overview it can use, and Ryan claims that the program can handle "even the most stressful and bizarre of conditions" - although it took me a moment to realise that he was referring to the Amiga rather than myself.

Okay, so there isn't a lot going for it in the face of current competition. Viewlet, Image, SuperView... they probably all do what you want anyway (but ExView isn't predominantly CLI-based (although you can use it from the CLI) which makes it intuitive

and clear-cut. It doesn't pretend to be anything bigger than it is.

So, if you've got a lot of IFFs taking around on your hard drive, I can recommend giving ExView a try. Let Ryan know what you think, as he will hopefully continue to improve on the features already present in his program. It certainly has potential, and for me would like to see this program again after another six months work. ★★★★★



ExView application





**VWM 1.5**

Type: Utility

From: Andrew Williams/VWM1.5.lha

Ver: 1.5

Requirements: OS 2.06+

In these days of large screenmodes and many applications and utilities, it makes sense to keep your Workbench screen (and any other screen for that matter) as organized as possible. When that program that you've just downloaded

refuses to open its window in the top right of your screen, no matter how much you shove at it, it's time to think about a solution. Thankfully, Eshman Modem has already thought about it. Virtual Window Manager is the result, and 1.5 is the latest version.

You'll require a little patience to get VWM operating to its full potential, as you'll need to create its prefs file by hand in your favourite text editor. This is where the provided manual is very helpful, listing all the options available to you in order to specify exactly where a window should open.

Virtual screens (larger than their visible area) aren't a problem either. Say, for example, that you had a screenmode that could display 640\*480, but the screen was 540\*380 - decide the height. You might use the top half for your

small programs, and the bottom half for your web browser, for example. Now, if you load another program, chances are it will pop up its window(s) in the top half of the virtual screen. If you're using the bottom half, you'll need to scroll up to the top half before you can see it. Not very user-friendly.

VWM can solve this, and many other window-positioning dilemmas. You can tell it to open windows at absolute or relative coordinates (from the top left of the whole screen, or the top left of the visible portion). VWM will also force windows to open under your mouse pointer, in the corners of your screen, or at a specified distance from the screen's edges. Not only can you position windows accurately, VWM will bring the newly opened window to the front if you tell it to, and can even delay windows from opening for a moment, so that you can position your cursor in the position you want it to open before it appears. Not only is VWM highly configurable, it is also free to register. What more could somebody ask for? \*\*\*\*\*

**Top Tunes**

As anyone who has given the *Amiga* more than a passing glance can probably appreciate, the music directory is a daunting prospect to browse through. With more tunes than your local dentist, you could be forgiven for pretending they didn't exist so that you wouldn't have to deal with them. It is a way so effectively dissimilar from today's torrent of global streaming, fanzine or shopping adverts that try to baffle you with volume.

In an attempt to make your path through the jungle a little clearer, then, comes "Top Tunes" - the result of years info being voluntarily subjected to hours of dance, trippy, happy, happy, moody, grungy modules, before disseminating the resulting information to you, the over-

familiar *Amiga* viewing public. Sit up and take notice.

This month's selection begins with "Lost In Space" (mods/psd/Plam\_U5.lha - 20K), a name familiar to all of us by now thanks to the film, and indeed the Lighthouse Family's single by the same name, although the module isn't a rip-off of the film's soundtrack or the single. Picking up speed after the first minute, and leading a spacy seven minutes, it evoked longer than any interest in the film. Although I have to admit that's only because I haven't seen it yet.

Next up, "Centralisation" (mods/work/Centralisation.lha - 56K), it wouldn't sound out of place in *Turkmen 2*, and lives up to its name by not being in *Turkmen 2*. Featuring nice changes in mood and leading a more battle-bellied three minutes, you won't be left with a headache after listening to this one.

Then, in keeping with a kind of dance tradition, we have a mod featuring a train, "DanceTrain" (mods/train/DanceTrain.lha - 127K) features a thumping bassline, and lots of train sounds, but thankfully no "all aboard" sample. After repetitive though, and just when you think the train sample's been exhausted, back it comes. Thankfully, unlike a real train (clanking or

otherwise), you aren't required to wait for it to stop moving before you get off.

Finally, we finish on a calmer note with "Road to Blamerton" (mods/index/ram-remembrance.lha - 24K). It's a long, winding road by the sounds of it, probably making its way through the Lake District or around a Scottish loch. If you're driving anything down this road, it would probably be a cloud. Lose yourself in two and a half minutes of gentle, calming mood-music. More relaxed than a Holicore factory.

**Exclusive!**

You may have noticed the lack of a game review on this month's pages. Well, that's because we have a special little bonus package for you - namely, a bumper selection of games from "HC Games," the makers of *Bloog* (reviewed back in the June issue). Marcus has kindly provided us with full versions of *Fayoh*, *Moged*, *SmashB&B*, *Jaskman*, the more recent *Polaris 5* and, of course, *Bloog*. All exclusive to CUJ *Amiga*, and all yours for the price of opening the drawer on the CD. Believe it, for it is so.





# PD.post

Richard Drummond, with one final glassy-eyed look at PD software on floppy disk....

## PD.post

### Complete C

Type: Programming

From: Underground PD, 54 Cammell Close, Stockbury, Essex SS2 9PL

Price: £8.50 (15 disks)

**X**-Project PD is a new public domain company, and this, their first release, is an ambitious one. They do distribute the normal single-disk type of pd software, but they specialise in themed compilations targeted at particular areas. Complete C is a 27 MB collection of material aimed at Amiga C programmers.

The set comprises 15 disks worth of archived software with an installer script. The main packages here are Matt Wilson's excellent DCC C compiler, the equally excellent vdoc compiler and the C Manual (an in-depth, Amiga-specific C tutorial). The remaining space is taken up with a myriad of different programming tools and utilities.

When immediately struck me

about this collection – apart from the packages named above – is the rather indiscriminate attitude with which software has been shovelled into these disks. No decision seems to have been made as to what would actually prove to be useful or not. Clearly, the compiler of

this set has opted for quantity not quality. The other major fault is the poor installer provided. Everything is merely de archived en masse to your hard drive, everything is provided as is. No attempt is made to install or configure the individual packages – which, in most cases, is a non-trivial task. Some kind of explanation of the software provided would have been useful.

Nevertheless, despite its faults, you cannot dispute the value for money offered by this collection. If you are into programming and don't have access to the Internet, the Complete C may prove a useful starting point. Beginners should avoid it, though. ★★



### Twiddlers Disk 7

Type: Compilation

From: Classic Amiga PD, 71 Deansgate, Padiham, Manchester M24 2SH

Tel: 01607 29 1638

Price: £1 plus 10p P&P per order

**T**his is a bizarre name for a bizarre collection of software. The most noteworthy item in this oddball collection is a suite of programs called Z160. Thomas Omlie's Z160 is a set of tools to improve the life of Amiga owners with Zip drives. *TransZ160* allows the easy copying of data from a Zip disk to your hard drive and vice versa; *SafeZ160* is a tool to enable the Zip's password protection and locking features; *WatchZ160* is a background process that can be configured to launch another program or script when a Zip is inserted. The package also comes with various mount tools and is designed to function seamlessly with the CrossDOS and CrossMAC systems to let you effortlessly

exchange data with foreign platforms. Z160 is CD-ware: if you use it, the author requires you to send him an audio CD.

The rest of this disk is really just fluff. There is *OSD*, which has nothing to do with cooking, but is yet another game of thoughts-and-crosses. Why is it that people will insist on writing these things? Here we are in the 1990s, we have this powerful invention, the computer – a tool to perform those monotonous tasks, to analyse masses of data, even to simply listen – with the potential of processing many million instructions per second. And what do we do? Play one the most dull and senseless



games in existence. (Perhaps the author was trying to make a philosophical point about the futility of existence.)

Bringing up the rear is *HTML-Create*, a set of tools to automate some types of HTML page creation; *WWWenthusiasm*, a collection of colourful drawings of WWW beaches for desktops with Macintosh, and *Turnip*, a neat to unspool program that will allegedly help you diagnose engine problems with your car.

Twiddlers Disk 7 is a worthwhile purchase only for the excellent Z160 tools. If you don't own a Zip drive and are not a Beagle-maniac, then it's best to give it a miss. ★★



## Mind Tiles

**Type:** Puzzle game  
**From:** Classic Amiga PG, 11 Deansgate, Salford, Manchester M6N 2JH  
**Tel:** 0161 722 1838  
**Price:** £1 plus 75p P&P per order



**M**ind Tiles is another of those puzzle games in which you have to remove pairs of matching tiles from a stack of tiles on-screen. The difference with this one, however, is that it doesn't employ the tiles from *Mah Jongg*, tiled Tiles is colourful, completely executed, but for some reason lacks the now-more-go factor that games of this type usually possess. ★★

## Revenge AGA

**Type:** Shoot 'em up game  
**From:** Classic Amiga PG, 11 Deansgate, Salford, Manchester M6N 2JH  
**Tel:** 0161 722 1838  
**Price:** £1 plus 75p P&P per order

**T**his is a sequel to a game I featured in this column in the June issue of CGA, a game of utter simplicity and gratuitous violence. The author has revised and updated it in response to floods of e-mail contesting him with suggestions. You depraved lot! In the interests of decrying the screenshot above, features only the title page of this game.

The reason *Revenge* gets a mention here is because the new additions are... highly amusing. There are extra enemies to shoot at (three, who does that 500 Gbytes figure look like?), extra weapons to shoot with (like, Experiment is a laugh) and some nice sound effects. The whole thing is very slickly presented, it will only last a usability value of about ten minutes... though. ★★



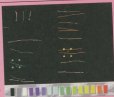
## Music Bugs

**Type:** Novelty  
**From:** Roberts Smith DTS 190 Falloway Way, Hemstead Garden Suburb, London NW9 1JL  
**Tel:** 0181 458 1838  
**Price:** 95p + 50p P&P

**M**usic Bugs is a unusual sound creation tool. The idea behind it lies in four bugs wandering about your computer screen.

When one of these animals is free, a sound is played; the pitch of the sound depends on the colour of the line. You, the user, are presented with a palette of several colours, with which you can draw on the screen using the mouse. You can assign the sound sample of your choice to each bug. It's sounds silly, but you'll quickly get the hang of it. The paths of the bugs may be controlled, too: grey lines make them turn through steady degrees, while lines through one hundred and eighty.

The "melodies" I managed to produce from these insectoid wanderings sounded more John Cage than Mozart. It takes a bit of practice to figure out where to place the lines in the bugs' paths. More often than not the end result is like an orchestra playing together but with



each musician leading from a different score. Perhaps that's due to my own inadequacy. The bugs tend to be unwilling to be guided unless you can draw straight lines - which, when you are as dextrously challenged with a mouse as I am, is frustrating. A lack of an effective delete tool is annoying, too.

Anyway, *Music Bugs* is an amusing diversion, it's probably appeal to young children (or anybody with a test discerning ear for music). ★★

## AmigaDOS Guide V2.5

**Type:** Online help  
**From:** Classic Amiga PG, 11 Deansgate, Salford, Manchester M6N 2JH  
**Tel:** 0161 722 1838  
**Price:** £1 plus 75p P&P per order

**W**hat do you do if you cannot remember the syntax of a particular AmigaDOS

command? Well, you could search for the manual that was shipped with your computer (but chances are you've either lost it or can't be bothered to dig it out. This is where some online help would come in handy. *AmigaDOS Guide* comes to the rescue! This is a new update to this Guide and was created with Gerd Diek's HyperBook authoring system. If you've not seen an earlier edition, it has an easy to follow (I rather dated interface. It is a simple matter of just clicking on the command or program you are stumped with and - hey presto - the required information appears. The topics covered here include AmigaDOS commands, Workbench programs, error codes and a glossary of Amiga terms.

On the whole the concept of online

help like this is a sound one, it is let down however, by poor implementation. This guide feels too much like an application, is too obtrusive for quick reference. It's not supplied with an install script - when clearly, to be of use, this package would need to be readily available on your hard drive.

It also lacks a search facility and is marred by a few errors. ★★









## 1. *VeggieLand of the Digital Highway* by James McEwen

This very nice piece of illustration shows that James knows his stuff when it comes to digital art packages. He created the veggieLand model in *Real 3D*, then imported it into *Photoshop* to make the main title and compose the background. The patterned background was created using *Photoshop*'s artwork tools, and the text created in *DrawStudio* (it, then used as an alpha channel for subtle texturing to be painted on).

An expert note like this is normally used for temporary artwork for the cover of a CD or book, where the left-hand half of the illustration is on the rear, so that the logo is placed on the right. Constructing it the other way around is far more natural to the Western eye, as we read right to left, but leads to problems if it is never where you are doing – unless of course you are working for an *Archie* publisher!

## 2. *High Guard* by Peter Fudge – Shrewington

Peter is an imaginative man. He renders in *Imagine 4.0* on an A7000 with a Magnon 12000 – not exactly a speed demon, although he says his average rendering times are 20-30 minutes. With a faster processor he could get the same rendering times but with more complex textures and lighting, more details and higher resolution output.

This picture is inspired by the *Traveller* role playing game, and consists of a mixture of Peter's own objects, with some from PD sources. Most of his other pictures were *Star Trek* or *Starline 5* inspired. Some of them were rather better than this one, but I was drawn to this one because of the way the scene of masked spaceships is brought to a much more human scale by the rather homely detail on the foreground ship.

## 3. *Puddle* by Auburn Hodgkinson

Auburn told this on a photograph he saw in a magazine. The bridge was modelled using *Draw3D*, but Auburn, turning on a slew staff of RAM, quickly ran out of memory space. In the end he worked the final image with a combination of *Paint* and *Photoshop*, and says that the end result is *luck* more than anything. I think he is being modest!

Let's play a part in the creation of any piece of art. You can never transmit exactly what is in your mind to the finished page or screen, and it is understanding and manipulating those workings of translation that is central to a technically good artist. It is this that 20th Century art, from the futurism of the Dadaists through the deep paintings of the abstract expressionism to contemporary work such as Helen Chadwick's *Red Flowers*, has with greater or lesser success spent much of its time exploring.

## 4. *Changeling* by Pinky (Adam Cookson)

Adam is obviously a pretty creative man, as he tells us absolutely nothing about how this was made, but's only been rendering for a few months, so he's hoping to improve. He says he wants the next one to be a bit moodier – he thinks he should move the lights a bit. The lighting is very nice, although the oddly facial front – or composition as what I think limits the moodiness – it is classically serene, quite Dore.

One thing I don't like about it is that despite the nice high-resolution image, it is a little harsh and grainy in places – not enough softening.



# User Groups

We hope you'll continue to make good use of our international user group directory, putting you in contact with like-minded Amiga supporters all over the world.

**Alpha Software**  
Location: Newcastle, UK  
Contact: Sarah Mullin  
Email: [sarah@alpha.net.co.uk](mailto:sarah@alpha.net.co.uk)  
WWW: [www.alpha.net.co.uk/](http://www.alpha.net.co.uk/)  
Meeting times: 8-9pm  
Places: IRC Allamby, Colwynfer  
Address: Sarah Mullin 115  
Carnegie Way, Colwynfer, Gwynedd  
North Wales, LL53 6LZ, UK

**Amiga Christchurch Inc.**  
Location: Christchurch New Zealand  
Contact: Andrew (aaron) to  
WWW: [www.amiga.co.nz/](http://www.amiga.co.nz/)  
Meeting times: 2nd Tues of month, 1800  
Places: Shires Community Centre,  
St Johns Rd  
Address: AO, PO Box 35-107,  
Christchurch, NZ

**Amiga Club Gals (ACG)**  
Location: Gals, Belgium  
Contact: Ben Bannister  
Email: [amiga.club.gals@planet.be](mailto:amiga.club.gals@planet.be)  
WWW: <http://www.planet.be/amiga/>  
Meeting times: 1st Sunday of  
month  
Places: Cultural Centre of Gals,  
meeting room 1  
Address: Weg Naar Donsberg 348  
B-3580 Deynzebeke, Belgium

**Amiga Computer Enthusiasts of  
Illinois (ACE)**  
Location: Northern Indiana, USA  
Contact: George (George)  
WWW: [www.aceindiana.com/](http://www.aceindiana.com/)  
Meeting times: 2nd Saturday of  
month  
Places: 28718 Hampton Woods Dr,  
Ellettsville, IN 47410  
Address: 82300 Pendleton Lane,  
Ellettsville, IN 47417-4167, USA

**Amiga Computer Group**  
Location: Umeå, Sweden  
Contact: Martin Gården  
WWW: <http://www.amigagrupp.se>  
Meeting times: Tuesdays 18.00  
Places: Umeå Station, Umeå  
Address: Skogsgatan 14, S-901 02  
Umeå, Sweden

**Amiga Falcons**  
Location: Malaga, Sweden  
Contact: Carl Johan Rudberg  
WWW: <http://www.falcons.se/>  
Meeting times: 1st Sat of month  
Places: Carl Johan Rudberg  
Address: Skogsgatan 14, S-901 02  
Umeå, Sweden

**Amiga Forever!**  
Location: Hampshire  
Contact: Stuart Smith  
WWW: <http://www.amigaforever.co.uk/>  
Meeting times: 1st Sat of month, 18.00

Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ  
WWW: <http://www.amigaforever.co.uk/>  
Meeting times: Tues 8-9pm  
Places: Amiga Forever!  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Amiga Service**  
Location: Chertsey, Belgium  
Contact: Hans Raaijmakers  
WWW: <http://www.amiga.be/>  
Meeting times: 2nd Tues of month, 1800  
Places: Chertsey Community Centre,  
St John's Rd  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Amiga User Group of Western  
Australia**  
Location: Perth, Western Australia  
Contact: Peter Rafter  
WWW: <http://www.amiga.wa.au/>  
Meeting times: 2nd Tues of month, 1800  
Places: Curtin University  
Address: 71 Chifley St, Marley  
Western Australia, 6002

**AmigaUSA**  
Location: Columbia Missouri  
Contact: Terry Rader  
WWW: <http://www.amigausa.com/>  
Meeting times: 2pm, 2nd Tues of  
month  
Places: TBA  
Address: 115 West Potosi Avenue  
Columbia MO, 65202, USA

**Amiga World Special Interest  
Group**  
Location: Athens, Greece  
Contact: Maria Loukaki  
WWW: <http://www.amiga.gr/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Athens, Greece  
Address: 115 West Potosi Avenue  
Columbia MO, 65202, USA

**AmigaTech Amiga Users Group**  
Location: Dayton, Ohio, USA  
Contact: Mike (Mike)  
WWW: <http://www.amigattech.com/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Dayton Heights Library  
Address: 115 West Potosi Avenue  
Columbia MO, 65202, USA

**Amiga User Society**  
Location: Perth, Western Australia  
Contact: Peter Rafter  
WWW: <http://www.amiga.wa.au/>  
Meeting times: 2nd Tues of month, 1800  
Places: Curtin University  
Address: 71 Chifley St, Marley  
Western Australia, 6002

**AmigaWorld BBS**  
Location: Liverpool, North Scotland  
Contact: Lewis Mackenzie

Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ  
WWW: <http://www.amigaforever.co.uk/>  
Meeting times: Tues 8-9pm  
Places: Amiga Forever!  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Budwin Amiga Users Club**  
Location: East Cornwall  
Contact: Nick  
Meeting times: 1st Sat of month, 18.00  
Places: Budwin Amiga Users Club  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Canberra Amiga Users Society**  
Location: Canberra, ACT, Australia  
Contact: Bob Segalovitch  
WWW: <http://www.amiga.net.au/~james/>  
Meeting times: 2nd Thurs of the  
month, 18.00  
Places: Eldon Town Centre Library  
Address: Canberra Amiga Users  
Society, Canberra, ACT, 2601,  
Aus

**Central Arkansas Amiga Users  
Group**  
Location: Little Rock, Arkansas  
Contact: Tom (Tom)  
WWW: <http://www.amiga.net/~tom/>  
Meeting times: 1st Sat of month, 18.00  
Places: Little Rock, Arkansas  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Club De Usuarios Amiga  
Zaragoza**  
Location: Zaragoza, Spain  
Contact: Carlos (Carlos)  
WWW: <http://www.amiga.es/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Zaragoza, Spain  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Colchester Amiga Forum**  
Location: Colchester, Essex  
Contact: Peter (Peter)  
WWW: <http://www.colchester-amiga.co.uk/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Colchester, Essex  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Conbar 14 Amiga User Group**  
Location: Northern Ireland  
Contact: Jimmy (Jimmy)  
WWW: <http://www.conbar.co.uk/>  
Meeting times: 1st Sat of month, 18.00  
Places: Conbar 14 Amiga User Group  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Convergence Computer User  
Group Queensland**  
Location: Brisbane, Australia  
Contact: Peter (Peter)  
WWW: <http://www.convergence.com.au/>  
Meeting times: 1st Tues of month, 18.00  
Places: Convergence Computer User  
Group, Queensland  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Convergence Computer User  
Group Queensland**  
Location: Brisbane, Australia  
Contact: Peter (Peter)  
WWW: <http://www.convergence.com.au/>  
Meeting times: 1st Tues of month, 18.00  
Places: Convergence Computer User  
Group, Queensland  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ  
WWW: <http://www.amigaforever.co.uk/>  
Meeting times: Tues 8-9pm  
Places: Amiga Forever!  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Computer Club Bristol**  
Location: Bristol, England  
Contact: John (John)  
WWW: <http://www.computerclubbristol.co.uk/>  
Meeting times: Mondays 18.30 to  
20.00  
Places: Bristol City College  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Computer Club Newcastle**  
Location: Newcastle, UK  
Contact: John (John)  
WWW: <http://www.computerclubnewcastle.co.uk/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Newcastle, UK  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Convergence International**  
Location: International  
Contact: Ben (Ben)  
WWW: <http://www.convergence.com.au/>  
Meeting times: 1st Sat of month, 18.00  
Places: Convergence International  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**CORC**  
Location: West Midlands  
Contact: John (John)  
WWW: <http://www.corc.co.uk/>  
Meeting times: 2nd Sat of month, 18.00  
Places: CORC, West Midlands  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Deal Amiga Club**  
Location: Deal, Kent  
Contact: John (John)  
WWW: <http://www.deal-amiga.co.uk/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Deal Amiga Club  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Dublin Amiga Users Meeting**  
Location: Dublin, Ireland  
Contact: John (John)  
WWW: <http://www.dublin-amiga.co.uk/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Dublin Amiga Users Meeting  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Dublin Amiga Users Meeting**  
Location: Dublin, Ireland  
Contact: John (John)  
WWW: <http://www.dublin-amiga.co.uk/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Dublin Amiga Users Meeting  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ

**Dublin Amiga Users Meeting**  
Location: Dublin, Ireland  
Contact: John (John)  
WWW: <http://www.dublin-amiga.co.uk/>  
Meeting times: 2nd Sat of month, 18.00  
Places: Dublin Amiga Users Meeting  
Address: 101 Excalibur Way, Dorset,  
Southampton, Hants SO40 1PQ











Get stuck into the CU Amiga Workshop - correction; CU Amiga's 'Out of Work' shop. Heck... we're really going miss you guys.

## 76 C Programming

In part 15, the final episode, Jason Holmes uncovers the Root lies from the depths of the AmigaOS.

## 80 Soundlab

James Teare games into his crystal ball to see what audio developments are due to us.

## 82 Emulation

Part 4, sees Jason Compton covering a few of the new breed of emulators.

## 84 Surf's Up

Mr Tool gives you his final services... 'and finally' Neil Bottrick has some more work news.

## 85 Surf of the Month

Our column Gino, Neil Bottrick, whiffs out a few more interesting sites for you to go visit.

## 86 Wired World

If you're not online yet... "you damn-well should be!" says Rethread Neil Bottrick. Here he looks at MME types.

## 88 Reviews Index

The Reviews Index in all its glory, with the inclusion of CU Amiga's 'not recommended' products.

## 94 Q & A

Got a question about your Amiga? We have all the answers Peter and more.

## 97 A to Z-N

John Kennedy tries to display more of his alphabetical prowess. Sadly he's finishing the series prematurely with the letter N.

## 106 Techno Tragedies

John Kennedy mourns the loss of a dearly departed friend and provider... Guess who?



AmigaLab job



Tool Hunt job



Issue of the Year

# Regulars

## 93 Back Issues

Mixed up on an issue? Shame! All is not lost though, as you can probably find the offending article here.

## 98 Backchat

Comments, general information, criticism, suggestions. Maybe you'll spot your name as there is print.

## 102 Points of View

With soap boxes underfoot, CU Amiga staff and contributors let the world know just what they think about the vicars of the magazine.

# Amiga Workshop



# Amiga C Programming

Buried deep down in the heart of the Amiga's Operating System you can find the handy Hook feature (but sadly no Peter Pan). Jason Hulance reveals all...



**T**his month we're going to look at improving the file lister by distinguishing files from directories. That way we'll be a step closer to a useful file requester.

However, the main topic for this month is the 'Hook' feature of the AmigaOS. We'll see how this is related to our file lister after we've built some foundations.

## File or directory?

The first step is to get `ExAM` to return slightly more information about each directory entry than just its name. What we need is the type of the entry: file or directory.

This is a simple change: instead of using `ED_NAME` with `ExAM`, we'll use `ED_TYPE`. Take a look at the new version of the `fillList` function in the first example, 'hook.c'.

By specifying `ED_TYPE`, the `Ex_Type` field of the `struct ExAMode` buffer will now be valid and can be read. If it's greater than zero then the entry is a directory. Otherwise it's a plain file.

The new information can now be passed to a slightly modified version of `addNode` that records the status of the directory entry as the nodes that we're collecting (see Example 1).

The status is passed to `addNode` as a new boolean parameter, 'isDir' (see Example 2). This is stored in the node as the `is_Type`.

In general we can use the `is_Type` field of our nodes for whatever we like (although it's only an 'unsigned char'). Having said that, we really ought to abide by the guidelines and use recognisably meaningful values.

That's what the constants `MY_FILE` and `MY_DIR` are all

## Example 1

```
/* Now through a buffer load of entries */
struct ExAMode* exd = ExAMode;
while(read)
{
    /* If ex_Type is then it's a directory */
    addNode(read->ed.name, read->ed_Type > 0);
    exd = read->ed_next;
}
```

about user values for `is_Type` start at `MY_USER` and grow downwards (so you didn't ought to have more than about 200).

## Directory order

So, now we know what type each directory entry is we can fiddle the sort order so that we group directories together (at the top). The standard `ASL` file requester does this, so it should be a familiar concept.

Remarkably, this is a very trivial change: all we need to do is alter the `compareNode` function to check the nodes' types first (see Example 3).

Notice that the three types of return value less than zero, zero, or greater than zero) that this function must make can be calculated by a simple subtraction of the type values.

The validity of this subtraction is extremely subtle in several respects. First, the result of subtracting the two 'unsigned char' values is (on pretty much all ANSI C compilers) an 'int', and these two operands are automatically upgraded to 'int' before the subtraction is done.

The 'int' type is signed, so it can handle a subtraction that gives a negative result. If this calculation were performed with unsigned values, we would never get a negative return value, so `compareNode` would really mess up our sorting! It would, in fact,

be invalid.)

The second subtlety is that the subtraction can be performed without causing overflow, since the operands have been implicitly cast to 'int' and this has a much greater range for the Amiga than 'unsigned char'.

In general, you would really need to do two comparisons: greater than, or less than each other) to validly order the two elements.

## Hooking into the ListView

Ordering the directories before the files is a useful way of separating the directory entries, but the current display does not otherwise visually distinguish between them.

If you examine the standard `ASL` file requester you'll notice that it marks directories by drawing them in a different colour (the standard Amiga setup has directories as white text and files as black).

The only way we currently have to do something like this is to use a custom rendering routine for the `Listview`. To do this we need to write a 'hook' function.

The second example, 'hook2.c', starts us off on this path by creating and using a very basic hook (based on official code). Example 4 is a snippet

## Example 2

```
/* Constants for the node type, deciding 00 to 1111 */
#define MY_FILE 00000000
#define MY_DIR 00000001

void addNode(char* name, int isDir)
{
    struct Node* node;

    if (name)
    {
        struct Node* node = AllocVec(sizeof(struct Node),
                                     MEMF_PUBLIC | MEMF_CLEAR);

        if (node)
        {
            if (node->is_Name = AllocVec(strlen(name)+1,
                                     MEMF_PUBLIC))
            {
                strcpy(node->is_Name, name);
                node->is_Type = (isDir ? MY_DIR : MY_FILE);
                strcpy(node->is_Path, name);
                system();
            }
        }
    }
}
```







## Example 7

```

WORD main()
{
    // Setup the font and
    // background colours.
    // according to whether
    // the line is selected.
    state = map(<void>state);
    if(state == ON_SELECTED)
    {
        open = gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
        open = gBaseFont->ON_SELECTED;
    }
    else
    {
        open = gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
        open = gBaseFont->OFF();
    }
    gBaseFont->
    <void>type == ON_SELECTED ?
    <void>ON_SELECTED :
    <void>OFF();
    open = gBaseFont->OFF();
    gBaseFont->
    <void>type == ON_SELECTED ?
    <void>ON_SELECTED :
    <void>OFF();
}

```

## Colouring

If you run this example you'll see that we've not really improved things. The nodes are still coloured the same. Actually, you might notice that we've introduced a couple of problems: clicking on an item does not visually select it and long text is not wrapped by other items. You'll see the latter error if you scroll the list up and down carefully. (One of the screenshots shows the menu too.)

Our final example, 'hook2.c',

fixes these problems. Example 7 shows the extra code needed to colour directories and selected items. The state is 'ON\_SELECTED' for unselected items, and the 'node' can be examined to decide if it's for a directory or a file.

The next fix is to draw the remaining part of the display slot in the background colour to remove any extraneous text from earlier renders in this slot.

Example 8 shows the addition of code which is used after the 'text' call in the 'hook' function. It makes use of the 'gBaseFont' 'FillRect' function, which is shown in Example 9.

## That's it!

We're still quite a way from having a file requester, but we've made some good steps forward. Even the last example is not yet complete: we ought to deal with the case that the ListView has been disabled. See if you can work out what you might need to do for that.

Sadly this is as far as we can take this series, hopefully we've achieved enough to get you well on the way to some serious C programming. We'd definitely advise you get hold of the official Palm Kernel Reference Manuals. They are on the 1.2 version of the Amiga Developer's CD in AmigaGuide format. The Amiga C Mapping List is also worth subscribing to. (See [www.amigac.com/~midan/amigac.html](http://www.amigac.com/~midan/amigac.html) for details. Remember, the Amiga needs coders like you!) ■

Jason Holmes

## Example 8

```

// Draw the black part of the target area, too!
void DrawTargetArea(void)
{
    gBaseFont->
    <void>type == ON_SELECTED ?
    <void>ON_SELECTED :
    <void>OFF();
    open = gBaseFont->ON_SELECTED;
    gBaseFont->
    <void>type == ON_SELECTED ?
    <void>ON_SELECTED :
    <void>OFF();
}

```



▲ The final window, with some colouring in the menu.

## Example 9

```

// Draw any part of 'fillRect'
// which is not covered by 'textRect'
void FillRect(int x, int y, int x2, int y2,
             struct TextRect* textRect,
             struct Rect* rect)
{
    if(x < textRect->x || x > textRect->x2)
    {
        gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
        open = gBaseFont->ON_SELECTED;
        gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
    }
    if(y < textRect->y || y > textRect->y2)
    {
        gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
        open = gBaseFont->ON_SELECTED;
        gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
    }
    if(x < textRect->x || x > textRect->x2)
    {
        gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
        open = gBaseFont->ON_SELECTED;
        gBaseFont->
        <void>type == ON_SELECTED ?
        <void>ON_SELECTED :
        <void>OFF();
    }
}

```







# Sound Lab

In this, the last issue of **CU** **Amiga**, **Dhomas Trenn** takes a look into the future to see what audio developments are in the pipeline.

**A** new detachable audio system is in development that already has support for various Amiga audio developers. In fact, the Amiga Pro detachable Audio System (ARTAS) is not specifically an audio system with some implies. It's a system designed to efficiently process data streams of any size in real-time, MIDI input, out. To ensure accuracy it monitors rates on external sync timing bus-

bars, driven by the Amiga device or external Amiga hardware.

The principle behind you to use plug-in modules or drivers to modify those use of existing hardware. These drivers might give ARTAS access to MIDI hardware for MIDI data, soundcards for audio playback out and all based on your personal preferences. The driver is not available

## The ARTAS project

for a particular system that you want to playback an MPEG audio file, but you do not have MPEG capable playback hardware. ARTAS will find the required read size to give you the best possible playback quality.

From a programmer's point of view, the task of supporting that type hardware will no longer be a concern.

## Defina

**P**ercoff Limited Partnership continue to expand their line of Defina audio cards. Soon to be released is the DefiExp expansion (in serial port) with up to 528 bytes throughput, and the A1200 Defina Internal sound card. Also planned are a

digital (SDSP) input/output expansion for the Defina Lite and a new Defina Pro sound card. The DefiA software allows you to redirect audio streams through the card's DSP effects, such as to apply real-time effects to any Amiga sound source, or to redirect

incoming sounds with applied effects to any Amiga program. This "sound piping" will be greatly improved with the Defina Pro, whose modular sound effects processing is planned - just what's needed. Jyrki Percoff of PLF indicated that they are also

working on the possibility of some special features for the Defina sound cards when used with the upcoming ProStationAudio software. Soon to come, as well, is a long-awaited hardware-based MIDI level 2 player for all Defina sound cards.

## ProStationAudio

**D**etails of the forthcoming ProStationAudio multi-track digital audio editing system from AudioLabs are still scarce, but here is a little of what you can expect. ProStationAudio will offer a multitrack, region-based, visual time-line editor (grab and drag objects to fade in, out, crossfade, trim, etc.) and a fully automated mixing console with multiple DSP inserts and sends per track. Automation tracks can be graphically edited on the time-line, superimposed to audio waveforms, or operate on-the-fly through the mixing console. With support for the "Mips" system you can expand ProStationAudio just by adding new plug-ins. Mips plug-ins can process tracks in real-time and react in real-time to parameter variations. Using both DSP inserts and DSP sends you can build complex interconnected networks of DSP algorithms that work in real-time. Got that?

**S**oundProbe 3 is in the works for release next year, with 15-20 new effects planned, enhancements and improvements to the existing effects, dynamic access, less storage (no more waiting for file-based outsource functions), faster FFT routines based on the Radix-4 algorithm, more and improved editing functions, multi-level undo, better Amiga support (with

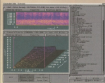
real-time effects processing), compressed storage, new graphical editor, and a programmable effects editor allowing linked effects with variable parameters for more powerful signal processing.

There is also the possibility of hardware-based DSP effects, particularly with the Aucta8 sound card. One of the more exciting plans is the integration of

the top Amiga sound editors and a merging of the two would be a much appreciated enhancement. A PPC version of SoundProbe is also under consideration, and when the next generation Amiga appears, expect to find SoundProbe among the first available programs. For those of you venturing elsewhere, SoundProbe apparently works under the Amiga Forever emulator, with just a few minor problems. Upcoming Amiga support for UAE will mean that SoundProbe should be able to interact directly to PC sound cards, if not, direct PC sound card plug-ins are also being considered.

While HiSoft Systems have just released SoundProbe 2, they do not have any immediate plans for new audio products. David Link promises that HiSoft will continue to support all of their music products (ProMIDI, Megasecond, Aucta, SoundProbe etc.) as long as there is demand.

## SoundProbe





## Amplitude & Prelude

**A**CT Germany are continuing to invest both time and money into development of Amiga hardware and software products. Marc Albrecht says they will continue to concentrate on their

existing products, but also have some new ones coming soon. Expansion modules for the Prelude sound card are on the way, including the Prelude which will allow you to save any

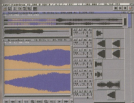
WaveShare compatible waveform board (such as the Roland SD3-M and Yamaha D5500) with your Amiga. Also soon to come for the Prelude are an MPEG audio decoder and an SPDIF digital I/O interface. Particularly exciting will be a new Dm5 II, 24 bit, 96 kHz, 12 channel 6 in - 6 out, expandable audio card called the Festive.

Also, a 19" rackmount device called the MIDIProII will offer up to 3 MIDI units each with 3 out, 1 in and 1 through, giving you access to a possible 48 MIDI channels with compatible MIDI software.

For audio CD production, he wants to check out Mastering Music for details of an as yet unnamed musical workstation that will be everything you need to take a professional audio project from start to finish. It will come in three forms: a tower workstation, a 19" rackmount version and a hard-

ware/software bundle. The workstation will include a CD-ROM writer, MIDI interface and hard disk recording system. All built-in. All hardware and software will be fully compatible with their 1600 to be released throughout 1995.

Amplitude's boss, author Thomas Wenzel is also working on the ARTAS project and says that SampleRate Deep 4.0 will be completely based on S. He immediately plans for Amplitude any to move some of the internal effects routines into loadable plug-ins and also to add some new ones. Once ARTAS is available, Thomas will begin work on the successor to Play'n, a file multi-format sound player based on the 68000 system. Further improvements are in the works for AmigaMIDI an MPEG 3 song player, with plans to rewrite the fasttracker routines to give better multi-tasking performance and also to improve the playback editor.



## Amiga

**A**ll's Martin Blom is optimistic about his plans for the Amiga, with hopes of a PPC architecture based and next generation Amiga Developer System in his future. Development has been resumed on the much delayed PPC version (1.04). Amiga version 5 is in the design stages, but high expectations of the new 68060 standard may or may not see its release. Whatever happens though, the Amiga source code will be released either as part of version five or its current state if 68060 is a unit with the developer community, so it is expected to be, efforts will be made to allow old Amiga programs to work with the new system. Perhaps little known is that Amiga was originally designed with Martin's dream of a new high-end sound card in mind - with lots of good meaning a very fast DSP and high quality AD/DA converters. Martin has also been asked to port parts of Amiga to MacOS, work that would most certainly benefit any Amiga version, too.

## young monkey

**Y**oung monkey studios will continue with their development of MIDI software offerings. Upcoming is a program called MIDI Snapshot, with which you can define a process (song) and assign MIDI devices to it. Then, subsequent to a button, MIDI Snapshot will retrieve all MIDI data from the associated devices. To increase the song setup, when an existing project and to the program do all the work for you. Development of MIDI Software Manager (MSM) will continue, including added support for the new 68060 project when it becomes publicly available.

## OctaMED SoundStudio

Since being officially shelved by its original developers, OctaMED SoundStudio has recently been put back into development via a third party. The core of the program is being rewritten so as to be quite hard core independent with a system of plug-ins to allow specific sound cards



to be used to their full potential. The interface is getting a facelift which will see the end of fixed size windows and problems with graphics cards. It's still quite a way from completion but is shaping up to be a worthy successor to the current release. As you might expect, it won't be available for 66000 users (200 minimum). More info can be gleaned from the OctaMED web site: [www.octamed.co.uk](http://www.octamed.co.uk).

## Further Information

**ACT Germany**  
www: [www: act-net.com/](http://www.act-net.com/)  
email: [amiga@act-net.com](mailto:amiga@act-net.com)

**Audio Labs**  
www: [www: audiolabs.it](http://www.audiolabs.it)  
email: [info@audiolabs.it](mailto:info@audiolabs.it)

**Caved Off Media**  
www: [www: cavedoff.com/](http://www.cavedoff.com/)  
email: [cto@cavedoff.com](mailto:cto@cavedoff.com)

**Decidians**  
www: [www: decidians.com/](http://www.decidians.com/)  
email: [upps@decidians.com](mailto:upps@decidians.com)

**HiSoft Systems**  
www: [www: hisoft.co.uk/](http://www.hisoft.co.uk/)  
email: [support@hisoft.co.uk](mailto:support@hisoft.co.uk)

**Kenny Wilson**  
www: [www: kennywilson.co.uk/](http://www.kennywilson.co.uk/)  
email: [kenny@kennywilson.co.uk](mailto:kenny@kennywilson.co.uk)

**Martin Blom**  
www: [www: fusion-lab.se/](http://www.fusion-lab.se/)  
email: [mblom@fusion-lab.se](mailto:mblom@fusion-lab.se)

**Pensoft Limited Partnership**  
www: [www: pc-planet.com/](http://www.pc-planet.com/)  
email: [pcsoft@pc-planet.com](mailto:pcsoft@pc-planet.com)

**RSP Software**  
www: [www: rsp-software.com/](http://www.rsp-software.com/)  
email: [info@rsp-software.com](mailto:info@rsp-software.com)

**Richard Koerber**  
www: [www: octamed.com/pages/for\\_email/](http://www.octamed.com/pages/for_email/)  
email: [Richard.Koerber@octamed.co.uk](mailto:Richard.Koerber@octamed.co.uk)

**Thomas Wenzel**  
www: [www: thomaswenzel.de/~wenzel/](http://www.thomaswenzel.de/~wenzel/)  
email: [wenzel@thomaswenzel.de](mailto:wenzel@thomaswenzel.de)

**young monkey studios**  
www: [www: youngmonkeystudios.com/](http://www.youngmonkeystudios.com/)  
email: [thomas@youngmonkeystudios.com](mailto:thomas@youngmonkeystudios.com)



# Emulation: New Horizons on Gaming

PART  
4

**Tired of hearing about the same old emulators? Interminable versions of Speccy simulators got you down? Jason Compton's investigation of some of the fresher faces should be just the job.**

## Ports of Call

**A** number of series of software development have been benefiting recently from the ability to port code from other platforms. That's why we have Quake, will soon have the Open and Mozilla web browsers, and can wait ourselves of one of many, many freeware Unix programs. Emulation has also come out winners in recent times as well, with many of the new emulators being based in part or in full on code being done for other platforms.

The positive result is that we get emulators that are much more useful for a long while, or even, on the Amiga with a relatively small amount of work, on the part of the porting programmer. The negative side is that since the code has been written in a portable language – usually C – it's not as fast or efficient as it might have been if it was built from the ground up by an Amiga programmer using large amounts of assembly code. So, while we do get the emulators we want, we need faster machines to run them than probably would have been the case if the emulator was a 100% Amiga assembly effort. The benefits of actually having access to these wonderful new programs tends to outweigh the inconvenience of expanded executable size and additional overhead.

## Coin-free Arcade

**A**rcade machines are computers too. They're in big cases and they have loud speakers and you have to put coins in them to run their programs, but at the root of the matter, they're not very different from your Amiga. Many arcade machines share common hardware but simply use different ROM chips for different games. After emulation programmers had conquered most of the tough computer and console nuts, they turned their sights on arcade machines. The result? An arcade machine that looks just like your Amiga!

The ultimate expression of arcade emulation (and perhaps the most monumental undertaking for any emulator) is MAME, the Multi-Arcade Machine Emulator. On the one hand, MAME is (almost) flawless. It is a single program whose express goal is to emulate, within a single program, as many different types of arcade game as possible. This leads to an executable size which, at last count, reaches nearly 7680 on the Amiga (for the PPC version). Some emulations require literally dozens of MBs of memory to launch. It's almost enough to make you sick.

Oh, but the games you can play! MAME supports hundreds of arcade classics, and more are added with every better frequent update. Amiga MAME is usually a revision or two behind the pace set on other platforms,

but that's generally not too bad – it gives everyone a chance to catch up, and upgrade their hardware, since MAME is progressing rapidly from the primitive Pac-Man-esque machines of the distant past to the beefier hardware of the late 80s and beyond – the part of system hardware that isn't nearly as easy to emulate.

MAME also has certain economies of scale. Because all emulators run more or less the same, there is only one set of disutilities you need to keep, only one interface GUI you need to learn, and only one set of in-game keys like coin insert and start that you need to remember. Plus, the MAME system provides would-be emulator programmers with a framework that's already given – all they need to do is provide an emulation module that conforms to the MAME standards. To date, dozens of programmers have contributed to the MAME project, and it's not too hard to imagine that they would not have been nearly as productive on their own.

MAME versions exist for the OS, 680, 680, and PPC (PowerUP) software. Of these, the 680 version can be quickly considered unusable unless you don't mind waiting a few minutes between frames. Fast 680 and 680 users can expect good frame-rate performance on a number of older games, but it greatly helps matters if you're willing to forego sound. And for

**I**f I've become a Professor of Emulators, I'd be the sort that preached the classics to my charges: Spectrum, C64, Apple emulators and the like. But new developments are just as important, if not more so – after all, unless else would we get more classics from? And gamers have mostly had to hunt the classics to get their thrills: the host computers and consoles. But new developments around the world have started to bring advanced platforms to Amiga gamers, and even quality old professors can't help but take notice.

some new games, even PPC emulators will find themselves getting less than optimal frame-rates – in part a testament to all that hardware being emulated, and in part the costs that come with portable C code.

Of course, MAME is not exactly like having a few machines in your basement or solving your arcade glory days. You may be surprised how different it feels to play these games sitting down with a joystick in your hand rather than standing up with industrial-strength joysticks and buttons on the console. Many games have custom controllers which are poorly imitated by keyboard, mouse, or joystick (basically anything with a driving/steering/firing theme, or anything with a paddle). And, of course, it's harder to gather throngs of people behind your shoulder to watch you rack up high scores. Still, MAME is the number 1 emulator in town for arcade action.





## Another fine MESS

**T**he MAME team has provided a very good example of how to successfully bring a lot of emulation power together for one devoted effort. A new project, dubbed MESS (Multi-emulator Super System) looks to stand on the shoulders of the MAME giants and do for computers and consoles what their predecessors did for arcade games. In the not too distant future, emulators may fall under two headings: MAME for modes and MESS for "everything else."

The number 1 reason for investigating MESS is that it's presently the only Amiga way to get one of the emulation Holy Grails: Sega MegaDrive/Genesis emulation. It's incomplete, as is MESS in just its first release, but it does work for some titles. Speed is pretty hard to come by at this point. The only part of MESS is to the PPC - it seems it's not worth porting the code to anything slower.

Presently, MESS emulates a rather eclectic group of machines. The MegaDrive emulation is the eye-catcher, but with limited functionality it's not the star. That would be the very solid (and far more compatible than other Amiga alternatives) NES module. Rounding off the group are the Colour Genie, the TRS-80 and the ColecoVision, all three machines of which either unpolished or no emulators exist for the Amiga. Future versions promise to emulate a whole host of new machines - such eclectic favourites as the Vectrex and Intellivision, along with the Atari 800, Apple II, POP1 and Kaypro CRM machines. No word yet on when, or if, they'll up the stakes and work on more modern emulations any time soon.

MESS is functionally a near dead-ringer for MAME, with very similar configuration and operation. The Amiga MESS port is a little less polished than

the MAME port, meaning you have to rely more on CLI options than the GUI. The Genesis emulation is extremely promising but also, speed and compatibility truly bring a shiver.

But MESS is in its very first version - both its first general release and its first Amiga port - and it's definitely going to be fun to watch.



## Flying Raccoon Suits

**E**xcuse me, sir, would you like a Super Famicom (SNES) emulator with dinner? You bet I would! Coming to the Amiga in both 68000 and PPC (mips4) formats, SNES64 provides the first solid emulator for that machine. Serious development only very recently stopped for this console - in America, Nintendo used the "Who needs a new machine?" slogan to push SNES Killer (re)mix while Sony and Sega

released their 32-bit CD consoles, right up until the release of N64, when they unveiled their own creation. So, there's a lot of pressing value in being able to recreate a SNES experience on your own system.

The ports are still in progress: the SNES 16-bit mode is not supported, meaning that all games are rendered down to a rather funky 256 color palette. Sound is similarly missing, and certain modes and

add-on FX chips are not yet implemented.

As for speed, only serious enthusiasts need apply - even powerful PPC systems can't squeeze out a 100% matched framerate. With a couple of tweaks, 680 users can comfortably explore the SNES back catalogue with abandon.

A CD32 port is highly recommended, as the two are nearly identical (SNES has one extra button).

## Future Times

**T**he future looks to be quite promising for gamers. As the kids get worked out of all of these emulators, we should have more opportunities to rediscover old favourites on our own desktops. And then there are the still unexplored realms. A very preliminary PlayStation emulator is under development, presently running as one big debug mode. Reports of some extremely basic (and extremely slow on 6800) functionality have begun to trickle out, but it's clear that the ever-age system is not up to such a task. MAME and MESS seem to grow like clockwork, and the buzz is that PPC Mac and PC emulators are around the corner, thus giving us the ability to run more, faster PC and Mac games. So, for the tortured souls who feel that there's nothing quite like gaming with a 16-bit emulation overhead, take heart - we're in the middle of some tremendous growth in opportunities!

MORE TIME TO STAY

AD TIME TO STAY (COLOR TIME TO STAY)

ALMOST ALL THE GAMES

1992

1993





# Surf's Up!

Catch up on all the latest Amiga Net news and gossip, and all rise for NetGod's final sermon.

## NetGod speaks...

In the past month, two major software packages that I use have been cracked by hackers. While claiming all sorts of justification for their actions, these groups are worse than parasites. At least a parasite allows its host to go on living, but these hacking groups are likely to kill the software market they pretend to care about.

Developers of both cracked programs have said they are considering ceasing development since they can't earn a living when their work is being continuously stolen. Even if they continue, they will have to divert resources to improving copy protection, instead of improving the product's features. It's not just the author they are stealing from; if you have paid for your copy of the software, you could be looking out on future developments.

These cracked programs don't always work exactly as the proper version; they have a tendency to crash the machine, behave oddly or do other damage. It's no more than the user deserves for receiving stolen goods.

It may be easier to distribute illegal software over the Internet, but that doesn't make it right. Many ISPs take a dim view of their service being used for illegal purposes. If you see a source of illicit software, inform the authors and, where possible, the ISP. It's you, the honest buyers of software, who will be the real losers. The authors can move on and earn a living elsewhere, you will be the one stuck without updates. Think about it.

Last month saw the eventual release of NetConnect 2 and we should be getting the first glimpse of Miami Deluxe this month. This long-awaited upgrade will add many new features, giving it similar capabilities to Genesis. It's too soon to say which will be best; I doubt there will be that much in it but it will be good to have a choice of two TCP stacks that are full featured, easy to setup and actively supported by their authors. It looks like a healthy competition is developing between the authors of Genesis and Miami, which can only lead to better programs for all of us.



## New news reader

Miami is of course different to NetConnect in that it is only a TCP stack. It will get you online but you will need additional software to do anything. Fortunately, the Amiga's Internet software market appears pretty healthy.

Along with updates to all three browsers, the last few weeks have seen the release of a brand new news reader called NewsFrog. Despite the rather unusual name, this is a very professional package with a wide range of features and extensive documentation and support. We've checked it in a review of it on page 66. Also check out the demo version included on this month's CD.



## ICQ

Despite the failure of recent negotiations with Minibits to officially port ICQ to the Amiga, there have been a few Amiga versions released recently. The most complete of which is STRCG. The problem was that Minibits wouldn't release details of the ICQ protocols, but some enterprising individuals have reverse engineered them by monitoring the data on an ICQ connection. Although no code has been stolen, this is still of dubious legality, so there's no copy of it on the CD. For those that have been in hiding all year, ICQ (pronounced 'I-see'-not 'I') is a means of communicating with other people by notifying them when you are online, although it does a lot more besides. It is true that Minibits realized that the Internet is not for PCs only, and that users of alternative computers may want to communicate with the PC owners currently using their system.



## AmiBench

AmiBench have reported some very impressive statistics for their site.

After a period of falling interest, they have

just reported receiving more than 300,000 hits in less than a year, getting on for 600 per day. AmiBench has been mentioned several times Surf of the Month. It is well worth visiting if you have Amiga gear to buy or sell, need to find an Amiga company or want any of the other information they offer.



The Amiga RCS Team

## Amiga RCS challenge

The Amiga RCS team has recently slipped down to seventh place in the overall standings of the international code-making competition, due to a new team climbing at an astonishing rate. The good news is that the recent growth in the use of PowerPC Amigas has resulted in an overall increase in progress and the chance of regaining sixth place. All Amiga owners online - but especially those with PowerPC cents - should join the challenge. The progress here is the background and has no effect on the normal running of your machine, only using the CPU when it would otherwise be idle. ■

Neil Matthews

## Contacts

Miami  
<http://www.surflogglobal.com>

NetConnect 2/Genesis  
<http://www.net-net.co.uk>

NewsFrog  
<http://www.frog.com/~ark/ShareWorks/Preview/NR.html>

STRCG  
<http://www.monster2000.com/~madsag80/>

AmiBench  
<http://thunderstation.org/AmiBench/index.html>

Amiga RCS Team  
<http://thompage.dietron.nl/~thwally/mk/>



# Surf of the Month

That rubber-suited water sportsman (no reference to his surfing antics either), Neil Bothwick, dips his toes in the drink for the last time ever... at least for CU Amiga anyway.

We haven't covered many Amiga-specific sites lately (none at all last month) so let's start by reminding that **Pure Amiga** posted from a group of people who ran on IRC, set up a few web pages, then a mailing list and then it just grew from there. Their site is very clearly laid out with easy navigation and sensitive use of graphics.

The range of information contained in the site and linked to is quite impressive. This is well worth a look. It seems that Amiga users never tire of customizing their /homepages. The range of icon sets and background images just keeps growing. A new site has just appeared dedicated to this: **The Workbench Customization Page** has a collection of icons, images, backgrounds, fonts and samples to change the appearance of your Amiga. The icons are a new style called Gloricons that use the Newscom colour system but don't look like Newscoms. They have a less 'yummy' look to them, but the unique feature is the way each icon gets a halo when you select it.



Webwork Customization

hence the name. Any discussion of the Internet soon gets round to security in one form or another. While many people worry too much about this, others don't worry enough. **Internet Security & Privacy** covers several important topics, including ones that many people give too little thought to, like the choice of a password. While parts of the site are written with PCs in

mind, most of the advice on here is applicable to all computers. One area of Internet security that can be very confusing is **Pretty Good Privacy**. David Rowatt's PGP pages try to put this fairly complex subject into an easily digestible form, with suitable warnings like "the rest of this paragraph is chock full of techno crap. If you are confused enough already and would just rather not know, skip it." If you've ever wondered about using PGP but have been put off by its apparent complexity, this would be a good place



Internet Security & Privacy

to start looking at it again. We've looked at online telephone directories before, here's a variation on the theme. How often have you seen an advert that gives a phone number without saying where in the country they are, or dialled 1471 to find an unknown STD code? The **Brainstorm STD Codes** page has the answer, you can either type in a single code to get the location, or you can download the full list to use at a glance. It also has some information on international dialling codes and access to a couple of university databases on telephone codes and



STD Dialling Codes

numbers. After seeing John Kennedy's piece on the Sinclair OS in last month's Techno Tuggeries, I thought I'd look for a OS devoted site. I didn't find one, but while looking at alternative transport, I found the **Veggie Van**. This van runs on a fuel made from used vegetable oil, although it is a little more involved than firing your ships than emptying the chip pan into the tank. It's supposed to be very environmentally friendly, but you'd probably have a heart attack after eating at the food feed needed to keep it on the road.



Veggie Van

Living fairly close to Liverpool, I felt interested to stumble across **Seascan.com**. This site is devoted to Liverpool, the city, the people, places to go and the forum. It's not exactly official, I'm not sure what the tourist board would make of it, but I enjoyed it. Some of the design is a bit dodgy but the



Seascan.com

content is good.

Finally, while we are all waiting for more news on the next Amiga, keep an eye on the various official and authoritative information resources, especially Amiga Inc and Amiga International, for official announcements, and sites like the Amiga Web Directory, Amiga Dig and Team Amiga for other news. ■

Neil Bothwick



Pure Amiga

## URLs

Pure Amiga	<a href="http://www.pureamiga.co.uk">http://www.pureamiga.co.uk</a>
Workbench Customization Page	<a href="http://webcity.sgi.com/mchapel/au/index.html">http://webcity.sgi.com/mchapel/au/index.html</a>
Internet Security & Privacy	<a href="http://www.itsm.com.au/www/inter/internetsecurity/index.html">http://www.itsm.com.au/www/inter/internetsecurity/index.html</a>
PGP - Pretty Good Privacy	<a href="http://www.arn.com.au/~drowatt/pgp/pgp.html">http://www.arn.com.au/~drowatt/pgp/pgp.html</a>
UK STD Dialling Codes	<a href="http://www.brainstorm.co.uk/uk/std/codes.html">http://www.brainstorm.co.uk/uk/std/codes.html</a>
Veggie Van	<a href="http://www.veggievan.org">http://www.veggievan.org</a>
Seascan.com	<a href="http://www.seascan.com/">http://www.seascan.com/</a>
Amiga Inc	<a href="http://www.amiga.com">http://www.amiga.com</a>
Amiga International	<a href="http://www.amiga.de">http://www.amiga.de</a>
Amiga Web Directory	<a href="http://www.amiga.com/amiga.html">http://www.amiga.com/amiga.html</a>
Amiga Dig	<a href="http://www.amiga.org">http://www.amiga.org</a>
Team Amiga	<a href="http://webcity.sgi.com/~gpeake/teamamiga.html">http://webcity.sgi.com/~gpeake/teamamiga.html</a>
CU Amiga Online	<a href="http://www.cu-amiga.co.uk">http://www.cu-amiga.co.uk</a>












# Reviews Index

This index contains a summary of product reviews from only the previous four issues of CU Amiga, sorted by issue and then alphabetically. This symbol  indicates a Superstar award winner.












## Hot Products

AmiNet 2.0	The must-have shareware archive.
Draw Studio	Amiga's best structured art/illustration package.
Exotic Dreams	Swirly picture manipulation 4 (aka).
Open Styles Photo	For photo-realistic hardcopy.
Foundation	Ultra-detailed 3D game.
Genetic Species	A damn fine 3D adventure blaster.
Image FX 3.0	The professional image processing software.
Miami 3.0	Miles jacking into the Net so easy.
Octamed SoundStudio	What? Still using Octamed 9? Get this now!
Open Magazine	We love this Workbench replacement - OS3.5... who needs it?
Face M8 Voice Modem	The Rolls Royce of Modems.
Pagestream 3.0	You want to lay out pages? Look no further.
Power! PowerUp cards	PowerPC accelerators.
Power Scan Magic	Use big PC monitors with your Amiga.
Power Tower	The best place to re-house your 1000.
PPaint 3.1	The best pixel paint package on any platform.
Quake	Another damn fine game.
Slamline PC2	Slide your PC to your Amiga.
SoundForge 2.0	Truly awesome sample manipulation package.
Totipot 4	Must-have print enhancement package.
WingsPC 2.00	Surf the web in style.
Wizard Mouse	The rodent of choice in the CU Amiga office.
Workbench 7	The big digital roll on the Amiga.
CU Amiga Magazine	CU #100!

## Reviews Index

Title	Type	Comment	Score
<b>June 98</b>			
AMWeb 3.0	Browser (reviewed)	The first Amiga browser with JavaScript	80% 
ImageFX 3.0	Graphics (paint/process)	The best image processor goes from strength to strength	85% 
Mellow (for Quake)	3D game	Utterly brilliant, worth buying Quake for alone	85% 
MasterOS 92	CD-ROM software	A great all round package	88%
Microsoft External Scan Doubler	Scan doubler	Well deserving of the Being Baff	90% 
Microsoft Internal Scan Doubler	Scan doubler	An imaginative route to a high quality display	88%
Power Digital Camera	Digital camera	Easy to use, fun, and cheap - but results don't impress	87%
Quake	3D game	The ultimate in atmospheric shoot 'em up action	88% 
Silurus Genesis	Contact	Superlative video output - at a price	90% 
The Labyrinth of Time	Adventure game	Some design flaws, but an engaging game nonetheless	78%



Title	Type	Comment	Score
<b>June 98 continued...</b>			
TurboPrint II	Printer drivers	An essential companion to any modern printer	90%
Ti-Amazing	TV tuner	Good, but not ideally suited for Amiga use	78%

<b>July 98</b>			
Amiga Forever	Amiga emulator	Very workable Amiga emulation	80%
Amnet 24	Various	The latest downloads from the Net	88%
Amnet Set 2	Various	A gargantuan collection of software	96%
Eytach single slot Java	Expansion (M128)	Functional, but inelegant and expensive	78%
GE-PC Tower	Tower system	An excellent, all-in-one Siemens system	88%
Flyin' High Arcade/Data Disk	Racing game	Bug fixes and extra courses to make Flyin' High playable	74%
Pyromania	DTV (ultra)	Loads of quality fire animation clips	94%
Quake: Mission Pack 1	3D game	A great way to get more out of Quake	87%
Shrek for Quake	3D game	Probably one of the finest add-ons for Quake	88%
Tornado 3D	Graphics (3D)	Flawed, but exciting enough to risk	82%
Virtual Karting 2	Racing game	A sequel that should never have happened	48%
Wheels On Fire	Racing game	A fun game, marred but system underloaders	58%
Yamaha MU-50	Sound card (MIDI)	Good, but not as flexible as a proper sound card	88%

<b>August 98</b>			
Cardswal M6 II	Floppy drive interface	The best way to improve your floppy capabilities	88%
Eytach CD-ROM SE	CD-ROM drive	No excuse not to buy a CD-ROM drive now	86%
Foundation	Grid game	A superstar despite the flaws - and it's getting better	90%
Genetic Species	3D game	A great synthesis of adventure, suspense and blasting	94%
SampleRate Open	Audio package	The best hard drive recording and editing system	88%
Scan Magic	Scan doubler	Gives a cheap, high quality display	90%
Scan Magic (with Ruler Scan)	Scan doubler	The best Amiga display this side of a graphics card	92%
Siemens V2.1	Network/PCI package	The best thing to happen to a PC	94%
SoundPhone 2.0	Audio package	An essential piece of software for anyone into sampling	92%
VCC2000p	Digital camera	Good package with acceptable output and a great price	88%

<b>September 98</b>			
Am Mail Pro 3.1	Comms software	Well worth a look if you fancy a change of mailer	86%
Amiga Developer CD 1.2	Developer tools	A must for all propper heads	96%
Also A4000 Tower	Tower case	Opens the world of tower conversions to A4000 users	88%
CrossDOS 7	Disk utility	Read and write PC disks - a long overdue upgrade	80%
Epic Encyclopedia 1998	Multimedia	Plenty of information, let down by the quirky interface	74%
GE-VFM M62/Plus	Scan doubler	A quality scan doubler that dares to be different	88%
GE-Writer	CD-R drive	Good entry level CD-R system	87%
Produce	Sound card	A solid card with good software support	82%
Time of Rescuing	3D game	A must have for Quake and Doom players	82%
Ultra Violent Worlds	Shoot 'em up	Pathetic example of the genre	58%
World News	Comms software	A worthy newsreader	80%







4-6 Fore-matt Home Computing would like to thank all the staff at CUL MAGAZINE for all their support over the years - Good Luck!



# FORE-MATT

## Home Computing

Dept. CU, PO Box 835, Wheaton, Missouri  
 63380 USA 653. Tel: 01793 853803



Public Domain/Shareware/CD-ROM/Commercial Software/Hardware  
 Call or send save for free catalogue disk!  
**PD / SHAREWARE FROM ONLY 50P/DISK**  
**A WHOLE WORLD OF AMIGA SOFTWARE**

CD-ROMS	SHAREWARE	PD SOFTWARE & PD	PD SOFTWARE & PD
Amiga 1000/2000/3000/4000/5000/6000/8000/9000/10000/11000/12000/13000/14000/15000/16000/17000/18000/19000/20000/21000/22000/23000/24000/25000/26000/27000/28000/29000/30000/31000/32000/33000/34000/35000/36000/37000/38000/39000/40000/41000/42000/43000/44000/45000/46000/47000/48000/49000/50000/51000/52000/53000/54000/55000/56000/57000/58000/59000/60000/61000/62000/63000/64000/65000/66000/67000/68000/69000/70000/71000/72000/73000/74000/75000/76000/77000/78000/79000/80000/81000/82000/83000/84000/85000/86000/87000/88000/89000/90000/91000/92000/93000/94000/95000/96000/97000/98000/99000/100000/101000/102000/103000/104000/105000/106000/107000/108000/109000/110000/111000/112000/113000/114000/115000/116000/117000/118000/119000/120000/121000/122000/123000/124000/125000/126000/127000/128000/129000/130000/131000/132000/133000/134000/135000/136000/137000/138000/139000/140000/141000/142000/143000/144000/145000/146000/147000/148000/149000/150000/151000/152000/153000/154000/155000/156000/157000/158000/159000/160000/161000/162000/163000/164000/165000/166000/167000/168000/169000/170000/171000/172000/173000/174000/175000/176000/177000/178000/179000/180000/181000/182000/183000/184000/185000/186000/187000/188000/189000/190000/191000/192000/193000/194000/195000/196000/197000/198000/199000/200000/201000/202000/203000/204000/205000/206000/207000/208000/209000/210000/211000/212000/213000/214000/215000/216000/217000/218000/219000/220000/221000/222000/223000/224000/225000/226000/227000/228000/229000/230000/231000/232000/233000/234000/235000/236000/237000/238000/239000/240000/241000/242000/243000/244000/245000/246000/247000/248000/249000/250000/251000/252000/253000/254000/255000/256000/257000/258000/259000/260000/261000/262000/263000/264000/265000/266000/267000/268000/269000/270000/271000/272000/273000/274000/275000/276000/277000/278000/279000/280000/281000/282000/283000/284000/285000/286000/287000/288000/289000/290000/291000/292000/293000/294000/295000/296000/297000/298000/299000/300000/301000/302000/303000/304000/305000/306000/307000/308000/309000/310000/311000/312000/313000/314000/315000/316000/317000/318000/319000/320000/321000/322000/323000/324000/325000/326000/327000/328000/329000/330000/331000/332000/333000/334000/335000/336000/337000/338000/339000/340000/341000/342000/343000/344000/345000/346000/347000/348000/349000/350000/351000/352000/353000/354000/355000/356000/357000/358000/359000/360000/361000/362000/363000/364000/365000/366000/367000/368000/369000/370000/371000/372000/373000/374000/375000/376000/377000/378000/379000/380000/381000/382000/383000/384000/385000/386000/387000/388000/389000/390000/391000/392000/393000/394000/395000/396000/397000/398000/399000/400000/401000/402000/403000/404000/405000/406000/407000/408000/409000/410000/411000/412000/413000/414000/415000/416000/417000/418000/419000/420000/421000/422000/423000/424000/425000/426000/427000/428000/429000/430000/431000/432000/433000/434000/435000/436000/437000/438000/439000/440000/441000/442000/443000/444000/445000/446000/447000/448000/449000/450000/451000/452000/453000/454000/455000/456000/457000/458000/459000/460000/461000/462000/463000/464000/465000/466000/467000/468000/469000/470000/471000/472000/473000/474000/475000/476000/477000/478000/479000/480000/481000/482000/483000/484000/485000/486000/487000/488000/489000/490000/491000/492000/493000/494000/495000/496000/497000/498000/499000/500000/501000/502000/503000/504000/505000/506000/507000/508000/509000/510000/511000/512000/513000/514000/515000/516000/517000/518000/519000/520000/521000/522000/523000/524000/525000/526000/527000/528000/529000/530000/531000/532000/533000/534000/535000/536000/537000/538000/539000/540000/541000/542000/543000/544000/545000/546000/547000/548000/549000/550000/551000/552000/553000/554000/555000/556000/557000/558000/559000/560000/561000/562000/563000/564000/565000/566000/567000/568000/569000/570000/571000/572000/573000/574000/575000/576000/577000/578000/579000/580000/581000/582000/583000/584000/585000/586000/587000/588000/589000/590000/591000/592000/593000/594000/595000/596000/597000/598000/599000/600000/601000/602000/603000/604000/605000/606000/607000/608000/609000/610000/611000/612000/613000/614000/615000/616000/617000/618000/619000/620000/621000/622000/623000/624000/625000/626000/627000/628000/629000/630000/631000/632000/633000/634000/635000/636000/637000/638000/639000/640000/641000/642000/643000/644000/645000/646000/647000/648000/649000/650000/651000/652000/653000/654000/655000/656000/657000/658000/659000/660000/661000/662000/663000/664000/665000/666000/667000/668000/669000/670000/671000/672000/673000/674000/675000/676000/677000/678000/679000/680000/681000/682000/683000/684000/685000/686000/687000/688000/689000/690000/691000/692000/693000/694000/695000/696000/697000/698000/699000/700000/701000/702000/703000/704000/705000/706000/707000/708000/709000/710000/711000/712000/713000/714000/715000/716000/717000/718000/719000/720000/721000/722000/723000/724000/725000/726000/727000/728000/729000/730000/731000/732000/733000/734000/735000/736000/737000/738000/739000/740000/741000/742000/743000/744000/745000/746000/747000/748000/749000/750000/751000/752000/753000/754000/755000/756000/757000/758000/759000/760000/761000/762000/763000/764000/765000/766000/767000/768000/769000/770000/771000/772000/773000/774000/775000/776000/777000/778000/779000/780000/781000/782000/783000/784000/785000/786000/787000/788000/789000/790000/791000/792000/793000/794000/795000/796000/797000/798000/799000/800000/801000/802000/803000/804000/805000/806000/807000/808000/809000/810000/811000/812000/813000/814000/815000/816000/817000/818000/819000/820000/821000/822000/823000/824000/825000/826000/827000/828000/829000/830000/831000/832000/833000/834000/835000/836000/837000/838000/839000/840000/841000/842000/843000/844000/845000/846000/847000/848000/849000/850000/851000/852000/853000/854000/855000/856000/857000/858000/859000/860000/861000/862000/863000/864000/865000/866000/867000/868000/869000/870000/871000/872000/873000/874000/875000/876000/877000/878000/879000/880000/881000/882000/883000/884000/885000/886000/887000/888000/889000/890000/891000/892000/893000/894000/895000/896000/897000/898000/899000/900000/901000/902000/903000/904000/905000/906000/907000/908000/909000/910000/911000/912000/913000/914000/915000/916000/917000/918000/919000/920000/921000/922000/923000/924000/925000/926000/927000/928000/929000/930000/931000/932000/933000/934000/935000/936000/937000/938000/939000/940000/941000/942000/943000/944000/945000/946000/947000/948000/949000/950000/951000/952000/953000/954000/955000/956000/957000/958000/959000/960000/961000/962000/963000/964000/965000/966000/967000/968000/969000/970000/971000/972000/973000/974000/975000/976000/977000/978000/979000/980000/981000/982000/983000/984000/985000/986000/987000/988000/989000/990000/991000/992000/993000/994000/995000/996000/997000/998000/999000/1000000/1001000/1002000/1003000/1004000/1005000/1006000/1007000/1008000/1009000/1010000/1011000/1012000/1013000/1014000/1015000/1016000/1017000/1018000/1019000/1020000/1021000/1022000/1023000/1024000/1025000/1026000/1027000/1028000/1029000/1030000/1031000/1032000/1033000/1034000/1035000/1036000/1037000/1038000/1039000/1040000/1041000/1042000/1043000/1044000/1045000/1046000/1047000/1048000/1049000/1050000/1051000/1052000/1053000/1054000/1055000/1056000/1057000/1058000/1059000/1060000/1061000/1062000/1063000/1064000/1065000/1066000/1067000/1068000/1069000/1070000/1071000/1072000/1073000/1074000/1075000/1076000/1077000/1078000/1079000/1080000/1081000/1082000/1083000/1084000/1085000/1086000/1087000/1088000/1089000/1090000/1091000/1092000/1093000/1094000/1095000/1096000/1097000/1098000/1099000/1100000/1101000/1102000/1103000/1104000/1105000/1106000/1107000/1108000/1109000/1110000/1111000/1112000/1113000/1114000/1115000/1116000/1117000/1118000/1119000/1120000/1121000/1122000/1123000/1124000/1125000/1126000/1127000/1128000/1129000/1130000/1131000/1132000/1133000/1134000/1135000/1136000/1137000/1138000/1139000/1140000/1141000/1142000/1143000/1144000/1145000/1146000/1147000/1148000/1149000/1150000/1151000/1152000/1153000/1154000/1155000/1156000/1157000/1158000/1159000/1160000/1161000/1162000/1163000/1164000/1165000/1166000/1167000/1168000/1169000/1170000/1171000/1172000/1173000/1174000/1175000/1176000/1177000/1178000/1179000/1180000/1181000/1182000/1183000/1184000/1185000/1186000/1187000/1188000/1189000/1190000/1191000/1192000/1193000/1194000/1195000/1196000/1197000/1198000/1199000/1200000/1201000/1202000/1203000/1204000/1205000/1206000/1207000/1208000/1209000/1210000/1211000/1212000/1213000/1214000/1215000/1216000/1217000/1218000/1219000/1220000/1221000/1222000/1223000/1224000/1225000/1226000/1227000/1228000/1229000/1230000/1231000/1232000/1233000/1234000/1235000/1236000/1237000/1238000/1239000/1240000/1241000/1242000/1243000/1244000/1245000/1246000/1247000/1248000/1249000/1250000/1251000/1252000/1253000/1254000/1255000/1256000/1257000/1258000/1259000/1260000/1261000/1262000/1263000/1264000/1265000/1266000/1267000/1268000/1269000/1270000/1271000/1272000/1273000/1274000/1275000/1276000/1277000/1278000/1279000/1280000/1281000/1282000/1283000/1284000/1285000/1286000/1287000/1288000/1289000/1290000/1291000/1292000/1293000/1294000/1295000/1296000/1297000/1298000/1299000/1300000/1301000/1302000/1303000/1304000/1305000/1306000/1307000/1308000/1309000/1310000/1311000/1312000/1313000/1314000/1315000/1316000/1317000/1318000/1319000/1320000/1321000/1322000/1323000/1324000/1325000/1326000/1327000/1328000/1329000/1330000/1331000/1332000/1333000/1334000/1335000/1336000/1337000/1338000/1339000/1340000/1341000/1342000/1343000/1344000/1345000/1346000/1347000/1348000/1349000/1350000/1351000/1352000/1353000/1354000/1355000/1356000/1357000/1358000/1359000/1360000/1361000/1362000/1363000/1364000/1365000/1366000/1367000/1368000/1369000/1370000/1371000/1372000/1373000/1374000/1375000/1376000/1377000/1378000/1379000/1380000/1381000/1382000/1383000/1384000/1385000/1386000/1387000/1388000/1389000/1390000/1391000/1392000/1393000/1394000/1395000/1396000/1397000/1398000/1399000/1400000/1401000/1402000/1403000/1404000/1405000/1406000/1407000/1408000/1409000/1410000/1411000/1412000/1413000/1414000/1415000/1416000/1417000/1418000/1419000/1420000/1421000/1422000/1423000/1424000/1425000/1426000/1427000/1428000/1429000/1430000/1431000/1432000/1433000/1434000/1435000/1436000/1437000/1438000/1439000/1440000/1441000/1442000/1443000/1444000/1445000/1446000/1447000/1448000/1449000/1450000/1451000/1452000/1453000/1454000/1455000/1456000/1457000/1458000/1459000/1460000/1461000/1462000/1463000/1464000/1465000/1466000/1467000/1468000/1469000/1470000/1471000/1472000/1473000/1474000/1475000/1476000/1477000/1478000/1479000/1480000/1481000/1482000/1483000/1484000/1485000/1486000/1487000/1488000/1489000/1490000/1491000/1492000/1493000/1494000/1495000/1496000/1497000/1498000/1499000/1500000/1501000/1502000/1503000/1504000/1505000/1506000/1507000/1508000/1509000/1510000/1511000/1512000/1513000/1514000/1515000/1516000/1517000/1518000/1519000/1520000/1521000/1522000/1523000/1524000/1525000/1526000/1527000/1528000/1529000/1530000/1531000/1532000/1533000/1534000/1535000/1536000/1537000/1538000/1539000/1540000/1541000/1542000/1543000/1544000/1545000/1546000/1547000/1548000/1549000/1550000/1551000/1552000/1553000/1554000/1555000/1556000/1557000/1558000/1559000/1560000/1561000/1562000/1563000/1564000/1565000/1566000/1567000/1568000/1569000/1570000/1571000/1572000/1573000/1574000/1575000/1576000/1577000/1578000/1579000/1580000/1581000/1582000/1583000/1584000/1585000/1586000/1587000/1588000/1589000/1590000/1591000/1592000/1593000/1594000/1595000/1596000/1597000/1598000/1599000/1600000/1601000/1602000/1603000/1604000/1605000/1606000/1607000/1608000/1609000/1610000/1611000/1612000/1613000/1614000/1615000/1616000/1617000/1618000/1619000/1620000/1621000/1622000/1623000/1624000/1625000/1626000/1627000/1628000/1629000/1630000/1631000/1632000/1633000/1634000/1635000/1636000/1637000/1638000/1639000/1640000/1641000/1642000/1643000/1644000/1645000/1646000/1647000/1648000/1649000/1650000/1651000/1652000/1653000/1654000/1655000/1656000/1657000/1658000/1659000/1660000/1661000/1662000/1663000/1664000/1665000/1666000/1667000/1668000/1669000/1670000/1671000/1672000/1673000/1674000/167			











# Q&A

Richard Drummond hangs up his trusty old stethoscope after completing his last ever technical Question and Answer surgery. Now if you will allow him he can try and reclaim his life back. Thankyou.

## Logos

### Mysteries and meanings...



Solutions to those mysterious troubles with your Workbench.



If you need help getting more from your Amiga, just ask!



All your Internet and general computer problems swiftly solved.



Trouble making your Amiga sing? We've got the answers here.



Technical matters beyond the scope of plug-ins and plug-ins.



Answers to queries on particular pieces of software.



General queries which just don't seem to fit in anywhere else.



Specific help with CD-ROMs and drive problems.



Problems with art and design? Help and advice is at hand.



Printers, monitors, we'll solve your peripheral blues for you.

## Enhanced CDs



I am writing in reference to Peter Lamont's email in last month's Q&A. He asked if there is any way to read enhanced CDs on his A1000 but you don't seem to understand what he meant by "enhanced CDs" and didn't answer the question properly. What he was talking about was the singles or albums that you can buy that contain artist information and usually a pop video as the disc's last track. As the disc information has to be the first track for an Amiga to be able to read it as a CD-ROM, the information cannot be accessed. Workbench CD players such as CopyCD-Player can identify the last track as containing data and even state its size but cannot access it.

I would also like to know if there is any Workbench hack that would allow me to read this information as I have many CDs that contain customised data and short or extended me AT&T to my dad's PC and downloading them at individuality I would either be able to view them directly. Thanks very much.

Phil Chapman,  
via email.

The reason we did not know what Peter meant by "enhanced CDs" is because the term is a generic one applied to many different CD formats. While the advice we gave was correct, perhaps it was not explicit enough.

All CD formats are derived from Sony and Philips' original specification for audio CDs – the so-called Red Book standard. Other formats – such as the CD-ROM format for data (the Yellow Book) – are extensions and work arounds of that specification. Enhanced CDs employ various different techniques of encoding multimedia data into an audio CD



▲ Read with CDs, courtesy of Sanyo player

– taking the data from normal audio CD players, while allowing the access of this data from special "players" like CD-ROM drives.

The format is vague at the moment is CD Extra (also known as CD-Plus), defined by Sony and Philips and supported by Microsoft. This is a two-session format; it permits for up to 99 audio tracks to be recorded in the first session and one ISO9660-compatible data track in the second session. This data track is only accessible via a multi-session CD-ROM drive – providing you are using a filing system which supports multi-session discs.

You can, therefore, read the data track on a CD-Extra disc with an Amiga, if you have a multi-session capable drive and filing system (like Hibernia Bytes' CacheCD95). The only proviso is that the drive must have the data track listed in its table of contents and flagged as data – which must be the case if, as you say, CopyCDPlayer recognises it as a data.

## Check the library



I hope you can help me. I bought a 6004025 AMD accelerator and a 32MB SMM at the WDA show. I cannot get the card to work in my A1200 with the 56kMod installed (although it works without it). When I try to boot the machine, it starts with code 0000-0000. I returned the 32MB module and got it exchanged, but it still wouldn't work.

To find out where the crash was occurring, I put SanyoDOS in the startup sequence; it happens just after loading the 6004025 library. The version of this library I am using – which was supplied with the accelerator – is version 37.10.

Damian Clarke,  
via email.

The problem is caused by the fact that you are using an old version of the 6004025 library. This library is necessary to emulate the software the FPU instructions that are not implemented on the 56k40. The



for that you get Guru number 6880. 6880 informs this diagnostic: It is a simulator error.

The latest version of the 6880 library is V44.3, which can be found on the phase 5 floppy at <http://ftp.phased.fr/pub/phased/06/6880/V44.3flo>. You will probably need a newer version of Softpath as well, since this is the format which causes the 6880 library to be loaded. The latest version of this 6880.80 and can be found on Amiga International's web site at:

[http://www.amiga.de/files/FullHD/3A/SoftPath44\\_3flo.htm](http://www.amiga.de/files/FullHD/3A/SoftPath44_3flo.htm) (Both of these are also on this month's CD in the Q+A drive).

61286-940 accelerators can cause a number of other problems. 6880 chips are quite power-hungry and the standard PSU shipped with 61286s lacks the muscle to cope — especially if you have a large hard disk, etc. There is also a problem of heat dissipation: the 6880 can get hot enough to fry a full English breakfast on. If you've got a desktop machine, it's a good idea to leave the topcover cover off and mount your machine on taller legs to increase air flow. A bigger fan wouldn't go amiss, either.

## CD-ROMs, the Universe and Everything.



I am writing to ask if you could please help me. I wish to spend about £120 on a CD-ROM drive for my Amiga 1200 (25MB). As I do not know anything about these drives, could you please answer me these questions?

1. Do the drives operate through any of the ports at the rear of my Amiga, or do they have to be fitted inside my machine?
2. What the heck is a SCSI device and what is heavens does it do?
3. What is the difference between a "Fast Squirrel" and a "Classic Squirrel"?
4. What is an IDE buffered interface?
5. Is it better to buy a CD-ROM drive that is not powered by the Amiga bus, it has its own power supply?
6. Is a double speed (x2) drive sufficient for everyday use?

C. Farrel,  
Limaohélie.

Some short answers to your questions are (the detail follows):

1. You cannot connect a CD-

ROM drive to any of the ports at the rear of your Amiga. The two usual ways of connecting up such a drive are either via a SCSI interface or via an IDE interface. Both these solutions require some extra hardware.

2. SCSI (pronounced scuzz), Small Computer Systems Interface) is a bus standard for communication between a computer and several devices, usually storage devices like hard disks, CD-ROMs, etc. The standard specifies the protocol, cabling, connectors, etc. SCSI is a fast and reliable, although expensive system.

3. The Squirrel is a SCSI interface for the Amiga 680 and 1200 which connects via the PCMCIA port, the card slot at the left-hand side of your machine. The Fast Squirrel, in addition, has a built-in fast serial port.

4. The Amiga 680 and 1200 have an internal IDE interface which was intended for use with an internal hard drive. With the correct cable and software it is possible to attach up to four devices to this interface. However, the IDE interface is not buffered and it is possible (although unlikely) to damage your computer by overloading it. A buffered interface is designed to prevent such damage.

5. If it is an external device it will come with its own PSU anyway. If internal, it is intended for use in a desktop or tower case. These type of cases typically have a much larger power supply than a standard 680 or 1200 and are able to provide power for a CD-ROM. 6. The only time when the speed of a CD-ROM drive is critical is when spooling animations directly from disc, e.g. in games: some games specify a minimum of 1x. For other use, the speed of the drive is immaterial — although as usual the faster, the better.

There are several cheap solutions for connecting a CD-ROM drive to your Amiga 1200 (or 680). One way is to get a Squirrel SCSI interface and a SCSI drive. As mentioned before, this device connects to the PCMCIA slot, so is easy to install. The other option is to buy a 4-way buffered IDE interface and an Atari CD-ROM drive.

Installation of this interface is internal, so requires your machine to be opened up. However, it is a fairly straightforward procedure: if you managed to install a hard disk, then it should prove no problem.

The advantages of going for the Squirrel are the simple installation,

stability and the fact you can connect up to seven devices. The advantages of the IDE option are cheapness and speed. The Squirrel device is not particularly fast, due to the poor bandwidth of the PCMCIA port. With a fast processor, you will get higher speeds from an IDE device.

You should look out for dealers who bundle drives and interfaces cheaply. For example, Eyrtech sell a 24x speed drive for £35.95; HPCart sell a double speed SCSI drive with a Squirrel for £79.95.



Is fast enough? The Cybertec Fast Squirrel.

## Light my fire



I have been reading frequently about Firewire devices in the computer press of late.

1. Just what is Firewire?
2. Is it anything to do with USB?
3. Are there any plans to implement it on the Amiga?

Ed Simkins,  
Loughborough.

1. Firewire is a trademark name for Apple's implementation of the IEEE-1394 high speed serial bus standard. Firewire was originally conceived by Apple as a cheap and simpler replacement for SCSI. It allows speeds (at the moment) of up to 155MB/s, supports hot-plugging (devices may be connected and disconnected while still powered on) and is plug'n'play (devices do not need any configuration with BIOS, jumpers, etc.).

The only devices that support Firewire at the moment are things

like digital cameras, DV cam-corders and monitors. Planned uses include anything from networking to interfacing of storage devices, printers and scanners. Because Firewire is peer-to-peer, no host computer is needed to control communication; it would be perfectly possible to download the data straight from a digital camera to a printer, for example.

2. No. Although superficially similar to Firewire, USB (Universal Serial Bus) is a completely separate bus standard. While Firewire is aimed at high bandwidth multi-

media applications, USB is intended for connecting things like keyboards, mice, joysticks, modems etc. USB allows maximum transfer rates of 15MB/s.

3. None that we know of. There are not many plans on a current Amiga that could permit the necessary bandwidth. If someone did wish to do so, it would have to be built into an accelerator card. If you read our CPU 2000 feature last month, our hypothetical new Amiga featured both Firewire and USB. This is a fairly safe bet.

## Faster, faster.



I recently purchased a Cybercom PPC for my Amiga 4000. As a subscriber to your excellent magazine, I read your December

'97 piece on overclocking the 68000. I am at a loss rather than of over-clocking CPUs but in this case it seems quite harmless — due to manufacturing changes the 680 can quite comfortably run at 66MHz and 60MHz.



The Cyberstorm PPC has two oscillators: one times the 1080 and the SCSI controller, the other the PPC. The SCSI chip, for either drive doesn't seem to want to run at 8MHz.

I have noticed that on the 1080 version of the Cyberstorm PPC the SCSI controller is tied with a separate oscillator. On the 1080 version of the Cyberstorm PPC the clock for this crystal is empty, but there nonetheless.

My question is: how do I connect this extra clock to the SCSI chip on the 1080 version of the Cyberstorm PPC? That way I can overlock the 1080 without affecting SCSI operation.

**Ben Hermans,**  
Antwerp, Belgium.

**Flow!** This is an interesting question. We have been trying to glean information from phase 5 on the overlocking of these Cyberstorm PPC boards for some time - with little luck so far. The reason for this, I suspect, is that phase 5 do not wish people to tamper with their boards (notice the oscillators are always soldered on and not socketed).

The Cyberstorm PPC 640 and 660 boards are identical in layout. You will also notice that they have no jumpers to set. The boards are configured for different CPUs and clock speeds by means of solder pads. Hence the only way to modify them is to physically cut tracks or connect pads. This is obviously not something to perform lightly with a piece of hardware as expensive as these boards.

We suggest that all readers interested in overlocking their Cyberstorm PPC boards should peruse phase 5 for the information. I know I will continue to do so, too.

## Ditch the PC

I have a towered up Amiga with a 2GB hard drive, 2 speed CD-ROM, 330 accelerator with OAS of 344d, soon to be replaced with a spanking new 300MHz PPC card. What I would like to do is ditch my PC in favour of my Amiga. However I would like to keep my Optix Pro 4800p fished scanner and my Lexmark 1020 printer if possible.

Is there any way for me to use this scanner and printer on my tailored Amiga as the scanner has a parallel interface with a through port for the printer. If I can use those accessories then I can ditch the PC and purchase some decent software like Wordstar 7, instead of having to use Word which on my PC is access to discover!

**Mark Sawyer,**  
via email

**I compatible with you:** at work I have a PC which I only use when I have to print something out - simply because getting an Amiga to print across a network is such a pain.

Well, there is good news and bad news. The good news is that you can use the Lexmark 1020 printer with an Amiga. You will need to use the HP DeskJet driver supplied with Windows. The bad news is that there is no way to use the Optix Pro scanner with an Amiga.

This scanner communicates via an IEEE-1284 interface, the Enhanced Parallel Port (EPP) standard. While IEEE-1284 is backwards compatible with normal parallel ports, the converse is not true - the Amiga parallel port does not support EPP. Perhaps, in the future, some hardware manufacturer may produce an add-on for the fast serial ports we have at the moment - a plug-in board which equips your Amiga with an EPP. However, even if you did find some way of interfacing this scanner with your Amiga, there is currently no software support for it. The 4800p is a TWAIN-compliant scanner, but there is no TWAIN software for the Amiga, either.

Until there are more developments in this area of the market, if you really wish to use your scanner with your Amiga, you could always network the two machines and use the PC as a large scanner driver. Our networking feature this month will give you some ideas on how to do this.

## A tower on the side

My system is an A1200, 1.2GB hard drive, Amiga CD-ROM, Blizzard 1280 Mhz with 16MB, but I require and a Supra Express modem. I'm thinking of expanding, but don't really want a big tower system.

1. Which is the best option for adding more devices, SCSI or IDE?  
2. The Supra mini tower with CD-ROM seems ideal. This will give me up to 5 IDE devices. Will this cause any problems or bottlenecks having this many connected to the IDE port?

3. Can I also run my internal hard drive if I use all the drive bays in the tower?

4. Is there a SCSI interface option? I really would like to use the Image Zip drive.

5. I would also like to fit a 1040 board. If I get the mini tower I will have to fit the board in the laptop. Taking into consideration the heat generated by these boards, which is the best board to go for?

About the mag, where would we all be without CU dropping through the door every month? Excellent.

**Robbie Randall,**  
via email

1. See the previous CD-ROM question. Other things to consider are:  
2. You may only connect up to four IDE devices. You could use the spare space in the tower for SCSI devices via your Supra! There is a limitation in that these two devices will work in pairs, two in one channel, two in the other. While the speed of the two channels is independent of each other, the speed of two devices connected to the same channel is restricted to the speed of the slower of the two devices. Also note that both the IDE interface and the Supra are non-EISA - all data transfer is performed by the CPU. Hence a fast processor is

needed for the best performance.  
3. Yes, it would be best to put it in the tower, though.  
4. Yes, not quite sure what you mean here. It is possible to install SCSI drives into the tower as well. However, you can get an IDE version of the Zip drive.

5. The best 640 board to go for is the Apollo one. If you have moved all other devices to an external tower case, it will be quite safe to run one of these in a second A1200. Heat will still be a problem, so see the question 'Check the Money' on page 94.

## You CAD!

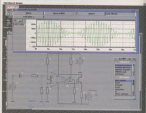
I am currently studying Electronics at university and we use packages like Spice on the PC for circuit analysis.

I own an Amiga 1200 with an 65066 card and 16MB of memory and I would naturally like to use my Amiga for homework, rather than having to buy a PC. Are there any similar packages available for the Amiga?

**Stewart Green,**  
via email

The Amiga is blessed with a very good port of Spice. It can be found in the archive sp000503 in mirror 6 on the Amiga.

There is also a graphical front-end for Spice available on the Amiga, which allows you to visually lay out components, define analyses, etc - instead of messing about with script files. It has a nice graphing tool, too. It is called AmSPICE and can also be found in mirror 6. (It's on CUOSD too.)



▲ Spice up your Amiga's life and analyse a few circuits along the way



## A to Z-N



**N** is for... No more. Well we never made it to **Z**, so this month you can savour the rarity of an 'A-N' column, compiled as always by that naughty but nice nutcase, John Kennedy.

### N is for...

#### Nanosecond

A measurement of time, one nanosecond is 1/1,000,000,000 of a second. Nanoseconds are often used to express the speed at which memory operates; for example, 70ns RAM is faster than 80ns RAM.

#### NE2000

A make of networking card, using the Ethernet standard. The term NE2000 has come to mean a generic, widely supported standard. It's possible to use NE2000 networking cards in an Amiga fitted with a GoldenGate 2 bridgeboard card.

#### Nesting

Placing something inside something else; for example, in programming terms a nested loop is inside another loop.

#### Netspeak

Largely un-written rules on how to behave when using the Internet. To summarise: try to be courteous, don't quote more than you post, avoid large sigs at the end of mail, and read any FAQ lists before asking a silly question.

#### Network

A connection of two or more computers, connected together and able to share data, mail or resources with its partners. Networks come in two main types: peer to peer, in which every computer is an equal and shares with every other; and client-server, in which a central server computer provides resources to a collection of other systems. There are a few networking systems for the Amiga.

#### Never lose

A carry over from the days

when computers used to communicate with us only by typing text on a tele-printer. As it spread out its little characters, it would eventually need to take a new line and start over. Now the new line character has been included in the various character sets in use, such as ASCII, and still seems hard to move down a line, and back to the left hand side of the screen.

#### Newbie

Slang term for someone who is new to the Internet, or new to posting in newsgroups. Often used as a term of abuse, although this is clearly against netiquette.

#### NewsIt

An AmigaDOS command which opens a new window on the Amiga desktop. The window offers a way of entering text instructions - the AmigaDOS commands - and executing them. You can open multiple windows and run commands in them all simultaneously. From Workbench 2 and onwards, newsIt does the same as newsWait.

#### Newsgroup

One of the services available on the Internet is News, which is like a giant bulletin board full of gossip, chat, technical arguments and an awful lot more, including blurbs which are hard to take to save your eyesight. There are thousands upon thousands of newsgroups, each with an individual name describing its subject, and sometimes its contents. All-righter is my favourite, as everyone is always so friendly - especially when they find out you use an Amiga.

#### NewsIt

An AmigaDOS command which is identical to newsWait. Opens a

command line interface window.

#### NFS

Network File System, a file system which allows computers to share files over a network. Computers with compatible NFS systems can browse each other's hard drives. For example, an Amiga can be included on a PC network by using a utility called Samba to create a compatible NFS.

#### Newspeak

An AmigaDOS command which temporarily disables the caps lock key. Needless to say, this is not used very often, except perhaps by people with fat fingers.

#### Newsretrieval

A flag sometimes used in the definition of an Internet window structure. It tells the Amiga's operating system that the program which created the window doesn't need to be told when the window has changed and is therefore in need of refreshing.

#### Notation

An AmigaDOS command which temporarily disables all non-Chip RAM on the Amiga. This program was most useful in the very early days of the Amiga, when programmers were learning the ropes.

Some programs would fail because they would (wrongly) assume that all of the memory they requested was Chip memory - in Amiga with megabytes of Fast memory was just too rare to plan for. These days, when any decent Amiga system has at least 8MB of Fast memory, this command is simply a relic of a bygone age.

#### Non-volatile memory

Memory which won't forget its

contents when the power is removed. Examples of non-volatile memory include ROMs, EPROMs and the Flash memory which is used in digital cameras. None of these forms of memory need a constant supply of power. If they did, your Amiga wouldn't know how to boot up when you switch it on, as it stores its core operating system in ROM.

Non-volatile memory does need power to read its contents of course, but unlike most forms of RAM - such as the Dynamic RAM as used in the Amiga - they will remember their contents when the system they are in is switched off.

#### Network

A network which isn't working properly is a network. Verbose pun, I know.

#### Null

In computer terms, null means nothing. When programming for example, a null string is empty.

#### Null modem

A null modem is actually an ordinary serial cable, wired slightly different from usual, and with two female connectors at each end. It allows a computer's serial port to be connected to another computer's serial port, instead of to a modem. This allows the two computers to communicate using standard terminal/modem software.

#### Numeric keypad

The cluster of keys with digits, mathematical operations and an enter key to the right of the main keyboard. Except on the A600, which doesn't have one.





# Backchat

**Sadly this is the last ever Backchat, so don't write in any more because we won't be here.**



♣ *Scots not writing in letters anymore!*

## Complete rubbish

I am thoroughly disappointed with CU for publishing the slow page speed regarding the "New

Millennium Hope Amiga" article which as the disclaimer pointed out was a complete load of rubbish.

I regularly purchase CU Amiga and I felt let down as I expect to be able to read sensible and informative articles. I regard this type of article as childish and harmful to the present and future credibility of our beloved Amiga.

Please, I implore you, refrain from this type of article and concentrate more on your usual high standard of informative (factual) features.

♣ *Butcher, Gumpert*

Sorry to hear you didn't like that little glimpse into the future. It was backed up by lots of facts and educated guesses. See how much of it comes true. Did it really say "Disasters: this article is a load of rubbish"? We think not!

## High scores

As much as I enjoy reading your mag, I sometimes wonder what's happening to you guys. After reading the Quake review, I got that Quake Player seems serious and launched it to check the speed on my old 68030 A400. You guys must be nuts to think this thing is playable. Even my brother's old Pentium 75 does better! How ashamed I was! The problem being you rated this game 95% and I quote "You can expect up to 10fps in full screen on a 68050MHz CPU. It is great". I don't think so. I think you guys wanted so badly to have Quake running on Amiga that you got carried away at the review, giving it an outrageously high score. A-Doom is fast and playable. Quake is not, no matter how technically advanced it is. So 95% is right, but not until we get a PPC version! It's not the first time I has hap-

pened, as one year ago I bought Capital Punishment (HNA) just to find it was completely unplayable. Now I'm afraid I can't rely on your reviews anymore! See, you won't help the Amiga by creating products.

♣ *Diego Pappalardo, Belgium*

Review scores are a tricky and always controversial subject. For instance, should we mark Quake down because it runs at unusable speeds on an "average" Amiga? We think not, as it's the hardware at fault not the game. You complain because it is slower than your brother's computer, get his CPU runs at a 95% higher clockspeed, and we'll bet it has better display hardware too. If you were to compare it to PC hardware of around the same power, you'd find that the Amiga version is indeed faster. We stand by that review.

As for your difference of opinion with our Capital Punishment reviews, you will be glad to hear that the reviewer left CU Amiga two years ago, so you can be sure

## Some reactions from the Internet to the news of our impending closure

I have always had the idea that the computer world is like Star Wars. Bill Gates and the PC are obviously the evil empire sitting in his Death Star head quarters and their Storm Troopers. Then you have Peter as De Vries and Carl Sagan with his Yoda movie. Then of course you have all the comic who are the Jedi knights with their new PowerUp boards to their light sabers, with which they fight the evil might of the PC. Then last but not least you have yourselves (and AF) representing the generals of the rebellion to Luke Skywalker inspiring us to keep fighting and not lose hope. So maybe this is the end of

episode two. The Empire Strikes Back. We're not a serious fan but we haven't yet lost the struggle, and we won't because you've helped us to survive through this most difficult period. Good luck and thanks to you all. *Adrian (a bit of a joke) (he said that himself)*

I'm going to be really sad to see you go. One Amiga mag for a month just doesn't seem to be enough for me. To be honest I thought AF would be first to go as your mag is far superior and your web pages always seemed to be up to date. Hopefully the houses of Future will replace what a great team you have going

and wrap up a few more employees. *George Elliott*

Powergrr! That's the screaming in agony over the loss of my favourite non-Swedish Amiga magazine. It was a real treat at the end of every month with a pocketful of cash to enter the magazine shop and pick up the latest issue of CU Amiga. But alas, no more. But maybe again in the near future... *Per-Gunnar Ekström, Umeå, Sweden*

Thank you for ordering me with CU Amiga here in Ireland! Thanks for all the help in getting disks to run on a cd, and I will do a game for ya

No one else would help as much and I don't think I would be here to say goodbye to you! It was not for the great staff at CU, but Amiga will go on FOREVER!

If anyone does read this, then I hope you all will have one last great time doing this last issue as it just won't get any more special than this farewell guest! *Ruth Gillies, Gwynedd, Ireland.*

I have looked in Amiga since 1989. I have enjoyed your mag for many years. I got a CD-ROM about eight months ago and have been buying the CD version each month. I am



he won't bother you again - nor will we for that matter, seeing as this is the last ever issue of CU Amiga.

## An angry AmigaFan

So just what has happened to the announcement from Amiga Inc which had been promised to be released just two weeks after the World of Amiga? Answer: Nothing but even an apology from the company on their web page.

Is this nothing more than just a ploy to keep a few employees for two Amiga magazines in work? Is it so that the now very disillusioned Amiga owners go out and buy just a few more products from the remaining Amiga companies? Amiga Inc have a job to answer for. Not informing the user base is a grave error for a company that wants to make an impact and generate an enthusiastic response.

If wanting both CU Amiga and Amiga Format should both take particular criticism. Although undoubtedly supportive to the Amiga the old-like style of both magazines has to be dropped. Large title fonts and over-sized pictures throughout make both a laughing stock when trying to present a case for the Amiga as an alternative media platform. I am not saying reading both magazines should be like reading The Guardian, but a more professional attitude should be taken.

Okay, so this has gone slightly off topic from Amiga Inc, but we need their input into the Amiga magazines as well. By that I mean advertising, monthly updates from a

▲ Is £95,000 - selling 800 each this is the way forward for Amiga magazines?



yearly year ago both magazines were selling 120,000+ copies and the Amiga was outselling other platform forms, and companies other than Amiga retailers were advertising. It is means making the magazine look like FMH in respect to advertisements. By all means do it if it brings in revenue for the magazines. More money, more pages, more content, more discussion - but will it increase sales? How many of you at CU Amiga and Amiga Format would actually go out and buy the magazine too if it landed if you didn't own it?

I have talked out more than enough money on two Amigas to be considered for some sort of pay back from Amiga Inc, and all Amiga magazines, past and present (and future?). Maybe there'll be an announcement by the time you read this, but I'll state a claim as to nothing will have been revealed as for the new CPU that Amiga Inc will use, nor any apologies from Amiga Inc the Amiga user base for being complete and after images and sticking with the Amiga.

Bob Wilson, via email.

Well, you certainly aren't too happy, are you. Taking it from the top, Amiga Inc never promised an announcement two weeks after the World of Amiga show, that was just an internet invention. What they said is that they would announce the OS partner as soon as it was verified, which they hoped would be within four weeks. It wasn't.

## "Is this nothing more than just a scam to keep a few employees for two Amiga magazines in work?"

As for their failure in general to keep the Amiga community informed, also you are right. Just keep in mind that it doesn't mean they aren't doing anything just because they aren't talking about it. We would certainly welcome input from them, regular updates and adverts would be great but that doesn't seem to be their plan right now.

As for your concern about magazine design, we welcome your opinions but we also realise that the look of the magazine is never going to appeal to every one of our incredibly diverse set of readers. The thing is that people generally don't complain about a magazine looking boring - they just don't buy the magazine. That means comments about it being "too childish" have to be offset by our own belief as to how the mag should look, or to put it another way, how all of the information in the magazine should be presented. We try to balance the

design of our pages to suit the subject matter, thus you will find more pictures in the games section than the Tech Scene section.

However many readers have complained as on the more serious layout we have come up with - one even likened it to the Guardian.

As for the relationship between sales and advertising, you are mixing up cause and effect. P400

doesn't sell hundreds of thousands because it is full of generic advertising. It gets the generic advertising because it sells hundreds of thousands. The reason we sell less than in the past is because there are a lot fewer Amiga users than there used to be - it's that simple.

As for the pay back thing - why do Amiga Inc owe you something because you bought something from Commodore? We don't see your logic. Besides when you buy something, you are making an exchange: money for product. Even if it was Amiga International you had bought your computer from, they wouldn't owe you anything for the money you gave them any more than you would owe them something for the computer they gave you. And as for the CPU announcement, you're right that there is unlikely to be an announcement by the time you read this, but then Amiga Inc always said they wouldn't be revealing much on the

comp to not you go.

## Snip Computer

I can't believe you're leaving us. In all this time I can even remember what it was Commodore User CU Amiga Inc just got better and better. Please, do something, anything, that Amiga Inc let on your side, make some bloody deals, sabotage Amiga Format, kill Bill Gates, anything! But seriously, to all the people who've worked on CU Amiga and all the people I've talked to, regardless of the making list, good luck in the future. I hope I'll see another quality mag appear for the next Amiga generation.

Someone whose name we lost

I must be honest. A couple of years ago I started buying English Amiga magazines. I bought them all and decided that Amiga Format and The One were the best ones, so I bought them regularly. Since then, I've never read CU Snip again. As has satisfied my needs as I've never bothered to try CU. But thank you very much for what you've done for the Amiga community.

Gertur Geopreflex, Sweden

I have been a reader since 1984. I bought off the Maford Canals, I was quoted Island Music, I bought The Sentinel, I Delivered the Crown. I never made CU. Now, it would seem, have Amiga sales

Thank you for keeping the flag flying through all the good times, bad times and impossible times. We will remember you. You have left behind a wealth of information and some of the greatest CDs on any computer ever put in. Thank you for following in creativity, individuality, humour and the unique.

Shelley Hansen

Having recently subscribed to your magazine, I am overcome by its impending demise. Any time I could be a relative visited the UK I begged for them to return with your latest disks or at least some CD ROMs. Every month you brought new wisdom to my life. It is ACORN that can

sell my friends that use superior hardware with inferior OSes. Your magazine was very professionally published with such great British humour. It made a joy to read and it was read more to more.

Andrew McPhee

They have been the worst ten months of my life. I considered it the best to get rid of as always and had finally received the money through an AmigaCard case. I reached your great web site and scanned the announcement looking for some good, but more and more unexpected, news. My mind became void as I realised that a part of my life that four years were not to end. It



CPU for about a year. We wouldn't disagree that there is plenty to moan about, but at least get your facts right.

## Two points

Just a few points I feel like making (I've tried, I'm going to bed now...):  
1. The Amiga needs a revamp, not just for the increased processor power flash, but also because of the lack-of state that people's Amigas are turning into. I must have about 10 patches, tracks, MODs, MUXes, everything, all to local performance or make life easier. It's commendable that people are making these patches, and that the AmigaOS is good enough to be able to use them, but an OS revision is needed pretty damn fast just one with stuff like MagicMenu, MuxOS etc. all built in or stuff like them.

2. Everyone should get a modem and Internet access now. It is hell here, 'you get access to loads of stuff'. To those who don't have Internet access, I'm sure you've heard it a million times before, but I wish like you a few months ago, now I can't imagine life with out it. Well, it's great anyway. NetConnect, whilst still in need of a little fine-tuning, is excellent, too.

That's all I have to say for now. Keep up the good work also.

**Jason Atkinson, via email**

## NetConnect?

I've just installed NetConnect on my system (41.200, Winmodem 1200Kbps, 56K FAX, Surf Squirrel) and I am far from being impressed. I installed it as a replacement for MuxOS.

Browser? Mail and now find that I can only achieve 15000 bps where as with MuxOS 15000 was not a problem.

I can't make head nor tail of Voyager's offline cache system, or the cache browser. Perhaps I am missing something, but I feel that NetConnect is a non-starter as far as I am concerned.

**Simon Gudge, via email**

Yes, you are missing something: the NetConnect mailing list, and the NetConnect support website. The cache browser problem is a known fault and you can download a fix. Your speed problem can probably be solved too - if you are sure it is configured correctly, check your 1200 isn't sticking on a 256 colour screen, which can put less strain on a slide on the CPU to allow faster serial speeds.

**'PowerPC could have been a credible way of holding the Amiga together until the new 'Future Amiga' is here.'**

## Long and hard

It's been a long and hard time for Amiga: twenty the last few years, and months. There's a lot of issues that need to be resolved to sort out the Amiga's future, like the bloody mess that Amiga International made over the PPC. I really feel that this issue alone could have helped make a turning point in the Amiga's future. PowerPC could have been a credible way of holding the Amiga together until the new 'Future Amiga' is here.

I see a lot of people on the Amiga PC Internet channel bailing



▲ How about getting Grand Theft Auto on Amiga?

about the good old days, and how nice most of them are PC owners or are going PC. I can't for any reason blame them. The total lack of control at the top of the chain (ie. Amiga International) has messed up

everything. If they can do this, and a bit more, the future will be bright - it'll be bloody stupid, if not, I fear it'll go like IBM did: poor shape.

I think it's fair to say that the Amiga users cannot and should not be to the sole thing that supports the platform.

**Mark Wilson, member of the Amibench Team, via email**

## Grand Theft Porto

This is a small request to all CU Amiga members who would like to see the PlayStation and PC game Grand Theft Auto converted to the Amiga. I am not planning any petition at most multi billion pound companies will not be interested even if there is a market. In their eyes it's PlayStation, N64 or PC. No other computer does gets a look in that's until Amiga makes a come back. Anyway I am interested in making an Amiga specific version of

the whole plan of the Amiga.

I am a very old Amiga user, who uses his Amiga as a daily basis, but I cannot rule out being a PC owner in the future.

I can understand that people feel they have to jump ship, for whatever reason. I just hope that they'll come back for the new Amiga. We need, now more than ever, for Amiga International, to talk to us, advertise, and support the Amiga users. Please?

Maybe by sponsoring the development of games (as has proved popular) or by coming up with a road map for the future and actually

more and more over the last month/year with some of the very best talent and C/C++s spawning like Anticipation of the new Amiga coming into next year and also the PPC boards, market games like Genetic Spaces and Foundations, applications and hardware appearing recently.

But it also couldn't be much worse with the favourite Amiga mag announcing its closure after a steady drop in sales over the last few years. It was, the first Amiga mag I ever bought way back in late 1989 when I got my first A500. And now since it's the one Amiga magazine I have bought every issue of since then (well most of the other major ones

too). It has also been enjoyable writing the C2000 development diary along with my fellow developers for CU Amiga although sadly we will never be able to finish as we cannot run. We have been really good to be featured in sharing the development of C2000 with your lovely readers. Hopefully CU will return when the new Amiga is released and get to do the previous proper of C2000 that was so well done in the September issue.

So farewell to Tony, Andrew, Neil and the rest of the gang, it has been great knowing you. I'm sure we haven't heard the last of you in the Amiga world.

## ... and a few more

Just one thing remained: write to let you know how good you were and if you will be back and give the going to do a Modern subscription. Ciao!

**Die**

The definitely the only person still trying to stay positive about this. All I want to say is: Btw, you keep me going on a computer that is 10 years old and I've saved every issue of it. I don't know what I'll do now, whether I'll stay with the Amiga or move on and wait. I'd like to hear what Ben and Nick from AF will say. Obviously it's bad news for them too - we all

know you got along really. Anyway, I'll leave it at that. Thanks again, you were all great.  
**Die Purkin**

My thanks to you all for the many years of quality entertainment and fun that I had reading your magazine. I would also like to thank you for putting the mailing list, which has brought a new dimension to the magazine. I wish you every success in the future.

**Steve Clark**  
**Manager, DraftPort Enterprise**  
It was the time of times, it was the worst of times.

Best is that CU has been improving



Grand Theft Auto, which takes the Amiga's strong points and puts them into an Amiga version, GTA is fast, the most intense hungry game ever with its basic graphics and simple overhead gameplay, but it is quite effective and lets players do what they want, which appeals to a lot of gamers.

As I am not a very good programmer and have no talent in graphics or music, I am asking other talented Amiga users who would like to give something back to the Amiga market to get in touch with me and hopefully get an Amiga version of GTA, but it will not be an exact copy due to copyright laws etc, but a good dose of GTA is the Amiga PD or commercial market would be nice to see. If any programmers, graphics or designers are interested in making this GTA clone please get in touch with me at the address given below. You can be a programmer in anything from AmOS, GEM Basic, ASM, C, C++ or any other capable programming language.

Please send an example of your programming, music or graphics. Send them to: Chris Saward (GEM), 10 Scarlet Close, Eastham, West Meresville, 182 801, ENGLAND. Or email: c@saward.com

Chris Saward, Meresville

## Glint Eastwood

After seeing details about the new Amiga coming in about five years' time, I feel the question must be asked: "Will it really be so wonderful?" I agree the specifications are impressive at this point, but so technology (mainly the CD) moves on I don't think the new Amiga will be

any better, in at least 'much better' than PCs that will be around in two years' time.

Take the graphics capability. You say around five times faster than Windows 3.1, but that is a somewhat you show the GEM 3D, which I believe is available for the PC very soon? So in reality, the PC already has a graphics card much more powerful than Windows 3.1, so just imagine what it will have in two years' time! Then, we move on to sound. How much further can sound go than what an AWE 64 Gold can do?

Finally, the CPU. Mass PC sales

good software and the Amiga would well once again be the machine for 'everybody'.

Living live the Amiga, in whatever shape or form it takes next.

Paul Jones, via email

Things can always get better. We think the key to it is exploiting current and future PC-oriented hardware expansion technology where appropriate whilst developing a platform from the base upwards. Fortunately this seems to be the Amiga Inc strategy. It's the way it all sits together (including the CD)

## "If we have to wait until the middle of 1995 before we get these new Amigas, we might have to use them in heaven"

means millions upon millions of people will buy Intel processors keeping only fast CPUs very cheap for Mr Amiga to buy.

So, in my view, the Amiga cannot hope to possibly beat the PC in terms of performance. Even if the Amiga did overtake, it wouldn't stay ahead for long. Therefore, I believe software support and talent in the Amiga will keep it alive, not superior technology. The Amiga even in its current state is more than capable of running applications like Word, Netscape etc. But it just doesn't have the support. Instead of producing a wonder machine, why isn't money being poured into encouraging development for the Amiga?

The only hardware improvements that are needed in my view are PCI slots and an Intel CPU slot, with drivers and the necessary modifications. Couple that with

that's the important part.

You ask how much further you can go than an AWE 64 Gold sound card. The answer, as with the other components, is that you can go on improving forever!

## Suma darts on

Hi, thank you for a cool magazine (getting better each month).

Well, I don't know if this has struck you, but have you all forgotten about Nostalgia? I'll bet you're all familiar with his work, and the fact that wondrously much of his predictions have become reality. And for you out there who aren't familiar with his work...

He was a man who lived between 3-400 years ago. He wrote hundreds of poems which turned out to be predictions of the pluralist. For example he wrote about a terrible guy who was in Germany who would start a war that was

more grotesque than anything seen before, all happening in the middle of the 20th century. His name was "Napier". Does! Later the world war would be ended with something described as 'mushrooms like things with a destructive force so powerful it was like the sky being torn apart'. You get the picture? He is highly-very clever!

Now, the game man has predicted a war in 1999 so big, so destructive and so violent that almost the entire human race will be wiped from the face of the earth. I don't have the details in front of me now, but it's ugly!

My point is: hurry up Gateway! Or else we'll miss those new Amigas. If we have to wait until the middle of 1995 before we get those new Amigas, we might have to use them in heaven, or hell, but then there would probably be some kind of check-out error on the barcodes, surfacet. And what if we find out that there is no heaven or hell? A nice dilemma isn't it?

Now you're sitting there laughing, thinking what a paranoid soul I am, but how do you know?

Gunnar Abelsen, Norway

Heaven... Nostalgia was never that about with his poems, and he never seemed to predict anything with them anyway, and Hitler was born in Austria... but you've got a point!

## Scarlet pimp

So what's the deal? Lisa, Paula, Agnus, Denise, Gayle and GEM? Who the "GEM" is this Gary broke? Is he the pimp or what?

Andrew Clarkin, via email

Goodbye dear friend DJ Amiga.  
Ed Collins  
World Foundry

Though I've not been an Amiga user for the past few years, I can't get getting back into the scene after hearing about the new developments by Amiga Inc. It's a long story, but at the time I had no chance but to switch to PC.

I'm very sad to hear that the major one which I used to buy without fail just a few years ago is coming to a close. I can't go looking forward to getting back into the world of the Amiga, away from the stale PC scene, and DJ Amiga would start again for us on the top of my "to buy" list.

But, there is hope. Maybe when these new super Amiga machines come out, just maybe they'll make a huge impact and we can be the good times, old times model. I'm expecting to see you fall out with a new magazine when it happens.

Mark

Well Peter about doing a web-based DJ Amiga in your spare time? It will be more of a flextime and everyone could contribute with Amiga reviews tips articles.

This is well said indeed, when the world's greatest Amiga magazine possibly never to be heard from again. But then again, maybe you

could start the mag up again when we have the new Amiga? Maybe not, but the ongoing history of the DJ Amiga team will remain with Amiga until worldwide, and you'll all be remembered amongst the friends. Certainly for producing the best made Amiga magazine, even up till the end.

Mark

Some people would say it's pathetic being upset about the closure of a mag. I don't think so. It may seem other sad to some but I am, deep, and deep. Amiga and DJ Amiga is quite a beautiful. I will forever miss your departure.

DJ for me wasn't just a magazine

it was a group of people in the same way Amiga is not connected just a computer.

You produced the most wonderful magazine, the Amiga. You could figure for and I hope your spirit will live on. At least we may still see some of you wonderful people on the list. I am in shock and hope to meet soon. Best wishes to every single person who works at DJ, a great meeting you at at the Amiga DJ Amiga. I feel better sorry for Richard you only recently left. At least I have another paper to keep me up and busy.

Liam = 10



# Points of View

Time for a few best opinions... please note that the views expressed here are not necessarily those of CU Amiga.



## Anecdotes of an upstart



met Robin Cowley.

Looking back it was only a year until I managed to bag my first job doing what everyone had said was impossible, although at the time it seemed an stormy. Regular mailshots to all the magazine editors, backed up with reviews and mock-up layouts initially got no response but soon respect the satisfaction of rejection letters. It was Anthony Jacobson, then Managing Editor of Commodore Computing International and the fledgling Amiga User International (then Commodore Business and Amiga User, the world's first Amiga magazine), who finally broke under the strain and agreed to give me that elusive first real job. Despite long hard hours and low pay, it was bristling with fun and just as importantly in the scheme of things, proved to

times I've typed "This is not a job!" just recently. So many people have commented that it's like being a

**"So many people have commented that it's like being a class friend. I can honestly say it's the same for me."**

close friend. I can honestly say it's the same for me. I'm not saying you're all my best mates or anything like that. I don't even know you really. I suppose it's more like being an imaginary friend. I've used to being

PC mag are far from the top of my list at the moment. Maybe I'll be an astronaut (after all it's only

a short step from being a space cadet or start up a techno club. Maybe I'll combine the two and start up the first techno club in space. Being an old copy of CU with you and you'll get in for free.

The last thing I must say before I sign off is don't assume that it's all over now that we've gone. Sure enough it's going to break the confidence of the scene in general, but it won't be terminal for the Amiga as a vehicle. If there's no more Amiga development I'm going to have a hard time finding decent subjects for my freelance work. I manage to get with other technology mag(s) I want to see ImageFX 4.0, Sound Probe 3.0, Viewport II, CreativeD SoundStudio

**S**o here we are, almost at the end of the last CU Amiga even. What is left to be said? Sometimes it's been a barrel of laughs. Other times it's been as frustrating that for the occasional brief moment it all seemed pointless. It's been inspirational and in recent years it's been a hell of a challenge just to keep the magazine.

Personally it's been an ambition realised. When I was a know-nothing school kid of 18, revelling in publicly correcting and cruelly humiliating my Computer Studies teacher whenever he made a mistake in class, I was asked what it was I wanted to do when I left school. I dug out a copy of Crash, the seminal Spectrum games magazine, and stated "I want to do that". After a cursory glance down the list of eligible careers had revealed that Computer Game Reviewer was not an option, the teacher responded "Well, some chance!" I'd asked for it I suppose, but that was the response from everyone else too, not just the teacher I'd been winding up for the last couple of years. Paperless, when everyone else was sorting out futures focused on a narrow band of what to me sounded like the most tedious vocations imaginable, I asked my mum for a typewriter for Christmas and set about figuring out how to become the

## sound check



me that it's worth having faith in yourself, not listening to the knowers and doubters, and just getting on with whatever it is you believe in.

## Funny fortnight

The last couple of weeks have been strange. We heard of the decision to close the magazine half way through the production schedule of this issue, the announced it on the Net as soon as we could and ever since have received a constant flow of emails from disbelieving readers. I'd rather not count the amount of



**A "Hardy Habits" new feature!**  
We'll take the time to tell you the best of CU Amiga.

everyday at this keyboard talking at close to no-one, each individual reader, and everyone, which is a bit strange but hard to stop doing. If you see me walking down the street, chatting away to myself you'll know I've not handled the change too well.

## Give-a-job

It's assumed by many that I'll be going off to work on a PC magazine. I'll be honest with you, at the moment I really don't know where I'll be going or when I'll be doing, but

2. Writing for living number is it up to now? I'm sure I'm not the only one. If you do too, make sure you tell the developers know. If you haven't yet got an Internet account then this is the time to get one sorted. The Net has been crucial in the Amiga's survival over the last few years and will continue to be a valuable medium. Meet people, buy products, swap creations, help each other out, keep it going.

Thanks to Nick and Ben over at Amiga Format for giving us a great bit of space. You can have your old magazine back again now. We've finished with it.

I'll get my coat then. ■

**Tony Morgan,**  
Editor of CU Amiga



## Proud as punch



I joined CU about 22 months ago. When I took the job, I thought CU wasn't likely to last very long and I'd be out on my ear within a few months. The second Amiga buyout was dragging on, a couple of minor players in the US had been linked with it, but these companies were far too small to keep the Amiga alive. Amiga magazines had been dropping like flies, and the market was down to four. Who were these idiots hiring me, then?

As it turned out, CU was still a pretty healthy proposition, although on a downward spiral. It has been common wisdom here from the day I joined that unless something happened in the Amiga market, the magazine would eventually close. We have defied expectations for a long time, but finally the day has come. Ironically our long belief was wrong, and the magazine closed when something is at last happening. Alas from a commercial viewpoint.

**"Sometimes we've had to dig hard and do a bit of serious investigative journalism, not something all that common in the computing press."**

EMAP didn't fancy the long time span before the results of this activity would have any chance of paying off.

**60% down**

In those 22 months, the market has continued to plunk. The first issue I worked on posted a circulation of 36,808 in a market of 100,000 magazine sales a month. This month, we have posted a circulation of 21,566 in a market of just under 41,000. This has made it tough in more than just financial matters. It has been a continual struggle to bring you reviews of new products, news and articles of relevance and interest. Oddly it has made working for CU much more interesting and challenging.

When I joined, the games sec-

tion was packed with reviews of games I wouldn't have touched with a ten foot pole in the Commodore 64 days. We made a very conscious effort to make it better, finding odd little projects, encouraging small developers, giving publicity to titles in development that looked good rather than already released commercial titles that we knew were garbage.

Mags for other platforms fill their news pages with game releases, but we figured you can read about the latest Hewlett Packard printer anywhere, so we have gone out and hunted news down. Sometimes we've had to dig hard and do a bit of serious investigative journalism, not something all that common in the computing press. It's been fun.

**Spaceboy**

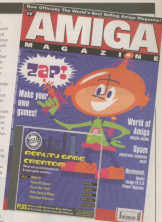
We've constantly tweaked our formula and finally cut out anything we consider dead wood. We've been able to get away with a few innovative things, such as selling our publishers on the details circuit board. We've been allowed to do imaginative covers that would never have happened in a market where publishers are too scared of competition to be different - the Quake cover, the controversial (but excellent) Ryan Hughes Spaceboy cover, the sports cover. This month's certainly is, too.

We've moved heavily into new media, with a CD which evolved

under the auspices of Peter Rabinovich and Neil Rabinovich into what I have no doubt is the best CD-ROM on any mag for any platform anywhere. We lead the way with our website, and were planning innovations (an instant news tickler) until the very last moment. We've had a policy of extensive interaction with our readership, notably through our mailing list - almost unique in publishing at this scale.

It has been an odd sort of golden age for the Amiga. Sales are poor and getting poorer, which saddens me, but the products are some of the best there have ever been. It's been an odd sort of golden age for CU, too. I am very proud to have been a part of it. ■

**Andrew Ross,**  
Sports Editor of CU Amiga



4. How bright the cover can be, still, like you're away - The 12

**Controversy corner**

What is it about John Kennedy? He writes a great PCW on what makes the Amiga what it is and it gets complaints. I seem to be able to write anything and people agree - even when I suggested that Amiga and Apple co-operate on a common hardware platform, no-one complained. It's my last chance, so here's some controversy fodder for you.

1. Emulated Amigas are real Amigas. If an Amiga with a PPC in it is still an Amiga, then why shouldn't one with a Pentium in it be an Amiga? In PowerMAC UAE more 'real' than old UAE? Of course not, if it runs Amiga software, it's an Amiga. Computers running UAE are Amigas, they're just rubbish ones.

2. Amiga Inc MUST cut out their PR. Excuses about wanting to keep 'under the radar' are nonsense, the Amiga industry needs to know that they are doing something, not necessarily exactly what. They are losing the confidence of the Amiga community totally unnecessarily because they are seen to be sitting on their asses twiddling their thumbs, and they want you to sign a non-disclosure agreement before they'll deny it.

3. The new Amiga has an excellent chance, but it may not be what you or I initially want. Everyone is crying out for an alternative, and Amiga Inc seem to be doing exactly the right things to provide that alternative. However a home computer for the dedicated specialist enthusiast will not have a massive market, so expect an emphasis on the WebTV/entertainment centre/games console sector first.

4. Not controversial for the vast, vast majority of Amiga users, but might seem so for a small but influential number - not Class Act, for god's sake!



## The future's open



**T**his is my final point of view in the final issue of CU. It's better make it count, huh? Before I leap into my soapbox, a few points: thanks to everybody who has bought and supported CU/Amiga over the years and thanks for all the comments and good wishes with regard to its impending closure. Six months simply was not enough time...

The Amiga market will survive CU's untimely mortality: it is clear. But for how long, is the question. It is my belief that the one thing that could turn the sliding tide at this point would be if Amiga Inc. were to release the source code for OS/3 into the public domain. My reasons for this are set out below. First, what would the benefit to Amiga Inc. themselves?

## The Pros for Amiga Inc.

Amiga Inc. claim to need the support of the existing Amiga community despite the fact that their performance to date is evidence to the contrary. If they really did care about the Amiga community, then the greatest gift they could give would be the source to the OS. This deed would recompense all their empty mouthpieces of commitment.

Such an act of generosity would have no ill effect on their proposed new Amiga. This new machine is an entirely separate entity: it is an Amiga in name only. The "Classic" Amiga user-base can only be a small slice of the target market for the mythical next generation machine.

Amiga's on-again, off-again attitude to producing a new version of AmigaOS — the much-labeled OS/3.5 — begs the question: whether they lack the will or competence to perform the task. Certainly they are not well-placed

to do this upgrade: they lack experience of the OS itself and of the markets real needs. By passing the burden to the Amiga community as a whole, they would relieve themselves of the headache.

The rumour currently circulating about OS/3.5 claims that Amiga Inc. would wish to sell 50,000 copies of an OS upgrade. This is clearly unrealistic. I think they would be lucky to recoup the development costs.

A precedent exists for the release of code that software companies can no longer directly make money from. Netscape's Communicator is a very visual and successful example. Many of the best recent Amiga games originated from a similar source: Doom, Quake, Descent, Alias.

There have been tentative steps towards this trend in the OS market, too. Can have made Solaris freely available for non-

com only for good publicity.

## The Linux model

The greatest success story in spreading systems today is Linux. From its humble beginnings as an experiment by one Finnish student, it has become a respected, mainstream OS with an estimated

**"The view seems to have been that the core of the OS, by being burnt into ROM, is carved in stone. This must change."**

user-base of around five million. System administrators are turning to Linux in favour of Microsoft's Windows NT, because of the former's low cost and board-level reliability.

The robustness of Linux is a product of its bottom-up maintenance and development. There is no single guiding force; updates and improvements are effected by the users themselves. Not only does this mean that each update is subjected to rigorous peer-

group review, but also that updates occur more quickly and are more relevant than those know best what features they need. A knock-on effect is that the Linux user-base is well-informed and technically able. The Linux community was awarded the best technical support award in 1997 by the InfoWorld online magazine.

Parallel can be drawn between the Amiga community and the Linux community: both are dedicated and selfless; both have a vigorous internet presence. If the AmigaOS source code was freely distributable as well, then the benefits that this open policy has given to Linux could apply to the Amiga.

A crucial factor in Linux's popularity is its portability. If the source to the AmigaOS were available, it would be free to be ported to any hardware platform, too. Certainly, 68k emulation would be required for legacy compatibility, but this presents no real problem.

The AmigaOS needs to adapt to survive. While there have been some spectacular developments in the last few years — all of which were third party — these improvements have been limited in scope. The view seems to have been that the core of the OS, by being burnt into ROM, is carved in stone. This must change.

**The battle plan**

If you wish the Amiga that we know and love to survive, there are things you can do.

Firstly, you can petition Amiga Inc. to do the decent thing and release the source code to AmigaOS. Phone, write, e-mail — I don't care — just do it.

Secondly, you can pledge your support to the AmigaOS project. For those that haven't heard, this project is the reverse-engineering of AmigaOS to produce a compatible, portable and bug-free operating system. If the AmigaOS team had access to the actual OS code, their jobs could be made so much easier.

Thirdly, if you haven't yet got internet access, then get out and get netted, now! The internet has been responsible for the flourishing of Linux and Novell's it has been one of the factors that has enabled the Amiga to survive this far. The importance of the 'net for the Amiga's future cannot be overestimated. Lastly, buy a subscription to Amiga Format. As the single remaining Amiga magazine in the UK, they regulate and preserve your support.

And finally, despite everything, the "Classic" Amiga does have up its toes and claws, then — oh, well, it was fun. Now make your independent digit to Amiga Inc. for letting this happen and get yourself a copy of Linux. ■

**Richard Greenwood is Staff Writer for CU/Amiga**



■ Any OS that has a casually overgrown penguin as a logo is all right by me.

commercial use, while IBM have been pressured to do likewise for their OS/2. The release of the OS source code would be a good PR move for Amiga Inc.

Openness is a current buzzword in the computer industry and one that Amiga have banded about in connection to their new machine. A real act of openness

Parallel can be drawn between the Amiga community and the Linux community: both are dedicated and selfless; both have a vigorous internet presence. If the AmigaOS source code was freely distributable as well, then the benefits that this open policy has given to Linux could apply to the Amiga.



# Letter from America



I definitely remember my first issue of CU. I had never really read a British Amiga magazine and these were and still are somewhat different from American publications, although changes in the market have brought them closer

together. But a local software store carried CU and I was pushed over the edge by the "Win a COCO!" competition - they weren't available over here yet, I didn't win, needless to say, but I read the issue anyway. I started reading more often, especially when my girlfriend, who

**"I was genuinely proud to write for CU Amiga and its editors, who were nothing but helpful and open to my suggestions."**

worked in that store, could get the unpurchased issues smuggled home for free. CU was a bit much for my tastes, seemed obsessed with games, had a rather silly "best version" show many of you really felt there was a handy member showing out tips for Monkey Island and

giving them somewhat questionable reviews. I'll never forget CU's high-estimate game score of 87% for Prince... well you'll, but it was a fun resource to have around. I was working on Amiga Report quite religiously back then, so it was nice to have a diversion around. Editorial

changes started to set in, some of those game reviews gave way to member coverage, and after CU's Max Berthoin asked me one day if I'd like to do a US news column, I said "Sure!" A half-page turned into a full page, a full page turned into the many reviews and features I've

been able to write for CU over the past three years.

The CU we must leave behind is not Ben Stigley's CU. I was genuinely proud to write for CU Amiga and its editors, who were nothing but helpful and open to my suggestions. They let me include my column observations on test games and emulators, and even believed that an American could talk about soccer! More importantly, they had turned CU Amiga into a truly great publication. I honestly cannot think of any other Amiga magazine, at any stage of its life, which provided a more competent and balanced mix of coverage than CU has for the past few years. I only wish it could go on. ■

**Jason Cooper,**  
CU Amiga's US Correspondent

## Keeping the Amiga on track



The news of CU Amiga's closure came as a great shock to just about everyone. It's another sign of the fragile position of the current Amiga market. Although the magazine was increasing its market share, the publishers made a commercial decision based on how much profit they thought they would make. However, this does not mean the Amiga is dead, I

advertisers and buyers, between enthusiasts and professionals. Some people have cited the growth of the Internet as a factor in the decline in magazine sales. I don't believe this is so. In fact, the instant feedback of forums like the CU Amiga mailing list has enabled everyone to express their opinions and desires, this has certainly improved the quality of the CU CDs by taking onboard many of the suggestions and criticisms received. In fact, my involvement with CU Amiga and the CDs game about as well as, if not better, in some Amiga newsgroups by Max Berthoin. Now, more than ever, there is a need for the sort of instant information on the Amiga market that the Internet provides.

information and technical help, including posts from Amiga Inc staff and other developers. The Internet isn't just a file repository like Amiga, you can get that from CDs. It isn't just a collection of web

reducing telephone charges as BT and the cable TV companies compete.

Who should we blame for what's happened? The list of potential culprits is long: Commodore, Ecom, Viccomp, Gateway, the lawyers, developers, software pirates, magazine publishers, apathetic users. The truth is that there is no single factor in the complex history of the Amiga. blame is negative and backward looking. We need to look to the future, to move on,

to be constructive. I will miss CU Amiga. For the past two years I have been lucky to work with a dedicated team, working on something we all care deeply about. There may be no more magazines after this one, but the spirit of CU Amiga will continue in the online Amiga community. Don't miss out, join us. ■

**Neil Berthoin,**  
CU Amiga's CD compiler & Comms Consultant

**"Now, more than ever, there is a need for the sort of instant information on the Amiga market that the Internet provides."**

don't feel much like working the next morning, but when I eventually sit down in front of my Amiga, it works as well as it had done the previous day. The Amiga will go on. What has been lost, more than anything else, is a channel of communication. Communication between developers and users, between

Keep buying magazines of course, there is always a need for them, for the in-depth and unique information only available when you have people working on it full time, but get online too. The CU Amiga mailing list will continue to provide information and discussion, the Amiga newsgroups provide valuable infor-

ation to be read passively like watching TV. It is a means of almost instant communication between Amiga users (and everyone else) worldwide. It has been easier to get online, and operating costs are falling with faster modems and almost monthly announcements of





# TECHNO TRAGEDIES

And now, the end is here...

**The thing about Techno Tragedies is that they aren't fair. We all know that they should have succeeded, that they deserved to win...**

**W**e know that Saturnus was technically superior, that the C3 would have made our money safer and more environmentally friendly. It's obvious that the Roma would have made a great games console, and that the Sam Coupé was a lovely little machine. We can only begin to appreciate the disappointment of those behind these heroic failures, the people who put so much time, effort and energy into projects, only to see them cancelled.

Now, inevitably, it's the turn of CU Amiga to take the spotlight in the Techno Tragedies column. We originally thought about writing about the Amiga, but that wouldn't be fair: the Amiga is certainly not out of the game yet. In fact, for the first time in five years there seems to be a real chance of making a go of things, helped by new technology, an over-reliance on Windows, the growth of the internet and emergence of technologies such as Java.

## Bye bye baby

But back to the near is past, and the demise of CU Amiga. The US Amiga magazine market was once buoyant enough to support half a dozen titles. Magazines like Amiga Computing, Amiga Shopper and Amiga Power have now all passed on, and CU Amiga is going with them. We don't think that this is due in any way to the quality of the magazine. In fact, under the leadership of Tony Horgan the magazine was reborn with a new vitality. I happen to think it's been the best twelve months of issues the magazine has ever had. With contributors such as Neil

Bellinson and Andrew Ryan, CU became close to the technically authoritative magazine which the Amiga never had. While at times it lacked the freshness of its rival, it was innovative in many other ways. It was the first magazine to have a regular CD-ROM coverdisk, for example.

## Do it yourself

CU also had a love of DIY electronics stretching back many years. In fact, the first and only letter I've ever received from the Press Complaints Commission was due to one of my CU DIY projects and the value of a staged 5.7uF capacitor. In recent times, this DIY passion has re-emerged, although thankfully the projects have been designed by someone who knew what they were doing, such as the MIDI project. Heck, CU even had a PCB taped to the front of one issue.

So what went wrong? Not a difficult question to answer. CU Amiga wasn't profitable. A magazine has to make a profit, and simply the incomes from advertising and sales have to exceed the out-going costs. Sadly, that wasn't happening any more and the magazine is being stopped. The Amiga magazine readership figures have tumbled over the last few years, and are now about a tenth of what they were at their peak - can you imagine what would happen to any market if sales dropped that much?

As a freelance, I've worked on

many a magazine, and I'd like to pass my thanks onto the team at CU Amiga for making one of my favourite titles. Personally and professionally they were a great bunch of people to work for over the years. I'll always remember the people I've met at CU. From chasing Lisa around the desk trying to get one last pre-manualised list, to being dragged around Dublin's bars by Alan, Neil and Dan both moved to the Evil Empire, and if you look through back issues you'll see many familiar names in other magazines on the news-stand. And of course there is also Tony's.

Thankful  
chances. It's only a matter of time before he appears on TDFR. Thanks also to the names which never get printed larger than 10 point font: the art designers, publishers, sales and advertising teams.

And the person who wrote the my contributor clauses - I'll miss you the most. Finally, thanks to all the loyal readers who have kept the Amiga alive, and who have written in with praise or insults. Occasionally I tended to forget exactly who I was writing for, and it did no harm to be reminded from time to time.

## Immortality

Just what about the Amiga itself? Simple: the Amiga will never die. Even in the worst case scenario, the Amiga will live on through the support of many tens of thousands of fans, eventually as an emulation on other systems. The best case is breathtaking: Gateway pull it off, and release a state-of-the-art multimedia computer which captures everyone's imagination and knocks the Windows systems off their perch.

When that happens, we'll see you again. ■  
**John Kennedy**





# AMIGA REPAIRS

## COMPUTERS AND MONITORS

# WHILE-U-WAIT!!!

Analogue is a recommended repair centre in the UK by Amiga Technologies

£10.00 EXTRA CHARGE WHILE-U-WAIT SERVICE PICKUP & DELIVERY CHARGES £7.05 EACH WAY

### MONITORS

14" DIGITAL SVGA.....£99.95  
15" DIGITAL SVGA.....£139.95

### REPAIR CHARGES

A500 A500+ & A600	A1200	A1200/A2000 & A4000
£39.95	£49.95	Quotation

**External**  
**SCANDOUBLER.....£75.00**

### INTERNAL FLOPPY DRIVES

A500/A500+/A600/A1200 .....£34.95  
These drives work as High Density in a A1200

### MEMORY UPGRADES

A500 Upgrade to 1 Mbit	A500+ Upgrade to 2 Mbit	<b>DISCOUNT PRICES</b> 16MB 100% FOR A 256KB 100% FOR A 512KB 100% FOR A 1MB 100% FOR A
A600 Upgrade to 1 Mbit	A1200 Upgrade to 2 Mbit	
A1200 Upgrade to 4 Mbit	A1200 Upgrade to 8 Mbit	
£12.95	£19.95	£39.95
£19.95	£39.95	£39.95

**LOLA**  
**GENLOCKS**

L1500.....£189.95  
L2000S.....£249.95

### MODEMS

BEST APPROVED  
+ COMM. SOFTWARE  
+ CABLES  
16K.....£69.95  
28K.....£89.95

### SCSI CD-ROMS

Quad Speed SCSI  
+ Sequential.....£119.00  
**IDE CD-ROMS**  
20 Speed.....£49.95

### APOLLO ACCELERATORS

A330 Lite.....£59.00  
A330/50.....£119.95  
A330/10.....£129.00  
A330/15.....£139.00  
A330/20.....£149.00  
A330/25.....£159.00  
A330/30.....£169.00  
A330/35.....£179.00  
A330/40.....£189.00  
A330/45.....£199.00  
A330/50.....£209.00  
A330/55.....£219.00  
A330/60.....£229.00  
A330/65.....£239.00  
A330/70.....£249.00  
A330/75.....£259.00  
A330/80.....£269.00  
A330/85.....£279.00  
A330/90.....£289.00  
A330/95.....£299.00  
A330/100.....£309.00  
A330/105.....£319.00  
A330/110.....£329.00  
A330/115.....£339.00  
A330/120.....£349.00  
A330/125.....£359.00  
A330/130.....£369.00  
A330/135.....£379.00  
A330/140.....£389.00  
A330/145.....£399.00  
A330/150.....£409.00  
A330/155.....£419.00  
A330/160.....£429.00  
A330/165.....£439.00  
A330/170.....£449.00  
A330/175.....£459.00  
A330/180.....£469.00  
A330/185.....£479.00  
A330/190.....£489.00  
A330/195.....£499.00  
A330/200.....£509.00  
A330/205.....£519.00  
A330/210.....£529.00  
A330/215.....£539.00  
A330/220.....£549.00  
A330/225.....£559.00  
A330/230.....£569.00  
A330/235.....£579.00  
A330/240.....£589.00  
A330/245.....£599.00  
A330/250.....£609.00  
A330/255.....£619.00  
A330/260.....£629.00  
A330/265.....£639.00  
A330/270.....£649.00  
A330/275.....£659.00  
A330/280.....£669.00  
A330/285.....£679.00  
A330/290.....£689.00  
A330/295.....£699.00  
A330/300.....£709.00  
A330/305.....£719.00  
A330/310.....£729.00  
A330/315.....£739.00  
A330/320.....£749.00  
A330/325.....£759.00  
A330/330.....£769.00  
A330/335.....£779.00  
A330/340.....£789.00  
A330/345.....£799.00  
A330/350.....£809.00  
A330/355.....£819.00  
A330/360.....£829.00  
A330/365.....£839.00  
A330/370.....£849.00  
A330/375.....£859.00  
A330/380.....£869.00  
A330/385.....£879.00  
A330/390.....£889.00  
A330/395.....£899.00  
A330/400.....£909.00  
A330/405.....£919.00  
A330/410.....£929.00  
A330/415.....£939.00  
A330/420.....£949.00  
A330/425.....£959.00  
A330/430.....£969.00  
A330/435.....£979.00  
A330/440.....£989.00  
A330/445.....£999.00  
A330/450.....£1009.00  
A330/455.....£1019.00  
A330/460.....£1029.00  
A330/465.....£1039.00  
A330/470.....£1049.00  
A330/475.....£1059.00  
A330/480.....£1069.00  
A330/485.....£1079.00  
A330/490.....£1089.00  
A330/495.....£1099.00  
A330/500.....£1109.00  
A330/505.....£1119.00  
A330/510.....£1129.00  
A330/515.....£1139.00  
A330/520.....£1149.00  
A330/525.....£1159.00  
A330/530.....£1169.00  
A330/535.....£1179.00  
A330/540.....£1189.00  
A330/545.....£1199.00  
A330/550.....£1209.00  
A330/555.....£1219.00  
A330/560.....£1229.00  
A330/565.....£1239.00  
A330/570.....£1249.00  
A330/575.....£1259.00  
A330/580.....£1269.00  
A330/585.....£1279.00  
A330/590.....£1289.00  
A330/595.....£1299.00  
A330/600.....£1309.00  
A330/605.....£1319.00  
A330/610.....£1329.00  
A330/615.....£1339.00  
A330/620.....£1349.00  
A330/625.....£1359.00  
A330/630.....£1369.00  
A330/635.....£1379.00  
A330/640.....£1389.00  
A330/645.....£1399.00  
A330/650.....£1409.00  
A330/655.....£1419.00  
A330/660.....£1429.00  
A330/665.....£1439.00  
A330/670.....£1449.00  
A330/675.....£1459.00  
A330/680.....£1469.00  
A330/685.....£1479.00  
A330/690.....£1489.00  
A330/695.....£1499.00  
A330/700.....£1509.00  
A330/705.....£1519.00  
A330/710.....£1529.00  
A330/715.....£1539.00  
A330/720.....£1549.00  
A330/725.....£1559.00  
A330/730.....£1569.00  
A330/735.....£1579.00  
A330/740.....£1589.00  
A330/745.....£1599.00  
A330/750.....£1609.00  
A330/755.....£1619.00  
A330/760.....£1629.00  
A330/765.....£1639.00  
A330/770.....£1649.00  
A330/775.....£1659.00  
A330/780.....£1669.00  
A330/785.....£1679.00  
A330/790.....£1689.00  
A330/795.....£1699.00  
A330/800.....£1709.00  
A330/805.....£1719.00  
A330/810.....£1729.00  
A330/815.....£1739.00  
A330/820.....£1749.00  
A330/825.....£1759.00  
A330/830.....£1769.00  
A330/835.....£1779.00  
A330/840.....£1789.00  
A330/845.....£1799.00  
A330/850.....£1809.00  
A330/855.....£1819.00  
A330/860.....£1829.00  
A330/865.....£1839.00  
A330/870.....£1849.00  
A330/875.....£1859.00  
A330/880.....£1869.00  
A330/885.....£1879.00  
A330/890.....£1889.00  
A330/895.....£1899.00  
A330/900.....£1909.00  
A330/905.....£1919.00  
A330/910.....£1929.00  
A330/915.....£1939.00  
A330/920.....£1949.00  
A330/925.....£1959.00  
A330/930.....£1969.00  
A330/935.....£1979.00  
A330/940.....£1989.00  
A330/945.....£1999.00  
A330/950.....£2009.00  
A330/955.....£2019.00  
A330/960.....£2029.00  
A330/965.....£2039.00  
A330/970.....£2049.00  
A330/975.....£2059.00  
A330/980.....£2069.00  
A330/985.....£2079.00  
A330/990.....£2089.00  
A330/995.....£2099.00  
A330/1000.....£2109.00  
A330/1005.....£2119.00  
A330/1010.....£2129.00  
A330/1015.....£2139.00  
A330/1020.....£2149.00  
A330/1025.....£2159.00  
A330/1030.....£2169.00  
A330/1035.....£2179.00  
A330/1040.....£2189.00  
A330/1045.....£2199.00  
A330/1050.....£2209.00  
A330/1055.....£2219.00  
A330/1060.....£2229.00  
A330/1065.....£2239.00  
A330/1070.....£2249.00  
A330/1075.....£2259.00  
A330/1080.....£2269.00  
A330/1085.....£2279.00  
A330/1090.....£2289.00  
A330/1095.....£2299.00  
A330/1100.....£2309.00  
A330/1105.....£2319.00  
A330/1110.....£2329.00  
A330/1115.....£2339.00  
A330/1120.....£2349.00  
A330/1125.....£2359.00  
A330/1130.....£2369.00  
A330/1135.....£2379.00  
A330/1140.....£2389.00  
A330/1145.....£2399.00  
A330/1150.....£2409.00  
A330/1155.....£2419.00  
A330/1160.....£2429.00  
A330/1165.....£2439.00  
A330/1170.....£2449.00  
A330/1175.....£2459.00  
A330/1180.....£2469.00  
A330/1185.....£2479.00  
A330/1190.....£2489.00  
A330/1195.....£2499.00  
A330/1200.....£2509.00  
A330/1205.....£2519.00  
A330/1210.....£2529.00  
A330/1215.....£2539.00  
A330/1220.....£2549.00  
A330/1225.....£2559.00  
A330/1230.....£2569.00  
A330/1235.....£2579.00  
A330/1240.....£2589.00  
A330/1245.....£2599.00  
A330/1250.....£2609.00  
A330/1255.....£2619.00  
A330/1260.....£2629.00  
A330/1265.....£2639.00  
A330/1270.....£2649.00  
A330/1275.....£2659.00  
A330/1280.....£2669.00  
A330/1285.....£2679.00  
A330/1290.....£2689.00  
A330/1295.....£2699.00  
A330/1300.....£2709.00  
A330/1305.....£2719.00  
A330/1310.....£2729.00  
A330/1315.....£2739.00  
A330/1320.....£2749.00  
A330/1325.....£2759.00  
A330/1330.....£2769.00  
A330/1335.....£2779.00  
A330/1340.....£2789.00  
A330/1345.....£2799.00  
A330/1350.....£2809.00  
A330/1355.....£2819.00  
A330/1360.....£2829.00  
A330/1365.....£2839.00  
A330/1370.....£2849.00  
A330/1375.....£2859.00  
A330/1380.....£2869.00  
A330/1385.....£2879.00  
A330/1390.....£2889.00  
A330/1395.....£2899.00  
A330/1400.....£2909.00  
A330/1405.....£2919.00  
A330/1410.....£2929.00  
A330/1415.....£2939.00  
A330/1420.....£2949.00  
A330/1425.....£2959.00  
A330/1430.....£2969.00  
A330/1435.....£2979.00  
A330/1440.....£2989.00  
A330/1445.....£2999.00  
A330/1450.....£3009.00  
A330/1455.....£3019.00  
A330/1460.....£3029.00  
A330/1465.....£3039.00  
A330/1470.....£3049.00  
A330/1475.....£3059.00  
A330/1480.....£3069.00  
A330/1485.....£3079.00  
A330/1490.....£3089.00  
A330/1495.....£3099.00  
A330/1500.....£3109.00  
A330/1505.....£3119.00  
A330/1510.....£3129.00  
A330/1515.....£3139.00  
A330/1520.....£3149.00  
A330/1525.....£3159.00  
A330/1530.....£3169.00  
A330/1535.....£3179.00  
A330/1540.....£3189.00  
A330/1545.....£3199.00  
A330/1550.....£3209.00  
A330/1555.....£3219.00  
A330/1560.....£3229.00  
A330/1565.....£3239.00  
A330/1570.....£3249.00  
A330/1575.....£3259.00  
A330/1580.....£3269.00  
A330/1585.....£3279.00  
A330/1590.....£3289.00  
A330/1595.....£3299.00  
A330/1600.....£3309.00  
A330/1605.....£3319.00  
A330/1610.....£3329.00  
A330/1615.....£3339.00  
A330/1620.....£3349.00  
A330/1625.....£3359.00  
A330/1630.....£3369.00  
A330/1635.....£3379.00  
A330/1640.....£3389.00  
A330/1645.....£3399.00  
A330/1650.....£3409.00  
A330/1655.....£3419.00  
A330/1660.....£3429.00  
A330/1665.....£3439.00  
A330/1670.....£3449.00  
A330/1675.....£3459.00  
A330/1680.....£3469.00  
A330/1685.....£3479.00  
A330/1690.....£3489.00  
A330/1695.....£3499.00  
A330/1700.....£3509.00  
A330/1705.....£3519.00  
A330/1710.....£3529.00  
A330/1715.....£3539.00  
A330/1720.....£3549.00  
A330/1725.....£3559.00  
A330/1730.....£3569.00  
A330/1735.....£3579.00  
A330/1740.....£3589.00  
A330/1745.....£3599.00  
A330/1750.....£3609.00  
A330/1755.....£3619.00  
A330/1760.....£3629.00  
A330/1765.....£3639.00  
A330/1770.....£3649.00  
A330/1775.....£3659.00  
A330/1780.....£3669.00  
A330/1785.....£3679.00  
A330/1790.....£3689.00  
A330/1795.....£3699.00  
A330/1800.....£3709.00  
A330/1805.....£3719.00  
A330/1810.....£3729.00  
A330/1815.....£3739.00  
A330/1820.....£3749.00  
A330/1825.....£3759.00  
A330/1830.....£3769.00  
A330/1835.....£3779.00  
A330/1840.....£3789.00  
A330/1845.....£3799.00  
A330/1850.....£3809.00  
A330/1855.....£3819.00  
A330/1860.....£3829.00  
A330/1865.....£3839.00  
A330/1870.....£3849.00  
A330/1875.....£3859.00  
A330/1880.....£3869.00  
A330/1885.....£3879.00  
A330/1890.....£3889.00  
A330/1895.....£3899.00  
A330/1900.....£3909.00  
A330/1905.....£3919.00  
A330/1910.....£3929.00  
A330/1915.....£3939.00  
A330/1920.....£3949.00  
A330/1925.....£3959.00  
A330/1930.....£3969.00  
A330/1935.....£3979.00  
A330/1940.....£3989.00  
A330/1945.....£3999.00  
A330/1950.....£4009.00  
A330/1955.....£4019.00  
A330/1960.....£4029.00  
A330/1965.....£4039.00  
A330/1970.....£4049.00  
A330/1975.....£4059.00  
A330/1980.....£4069.00  
A330/1985.....£4079.00  
A330/1990.....£4089.00  
A330/1995.....£4099.00  
A330/2000.....£4109.00  
A330/2005.....£4119.00  
A330/2010.....£4129.00  
A330/2015.....£4139.00  
A330/2020.....£4149.00  
A330/2025.....£4159.00  
A330/2030.....£4169.00  
A330/2035.....£4179.00  
A330/2040.....£4189.00  
A330/2045.....£4199.00  
A330/2050.....£4209.00  
A330/2055.....£4219.00  
A330/2060.....£4229.00  
A330/2065.....£4239.00  
A330/2070.....£4249.00  
A330/2075.....£4259.00  
A330/2080.....£4269.00  
A330/2085.....£4279.00  
A330/2090.....£4289.00  
A330/2095.....£4299.00  
A330/2100.....£4309.00  
A330/2105.....£4319.00  
A330/2110.....£4329.00  
A330/2115.....£4339.00  
A330/2120.....£4349.00  
A330/2125.....£4359.00  
A330/2130.....£4369.00  
A330/2135.....£4379.00  
A330/2140.....£4389.00  
A330/2145.....£4399.00  
A330/2150.....£4409.00  
A330/2155.....£4419.00  
A330/2160.....£4429.00  
A330/2165.....£4439.00  
A330/2170.....£4449.00  
A330/2175.....£4459.00  
A330/2180.....£4469.00  
A330/2185.....£4479.00  
A330/2190.....£4489.00  
A330/2195.....£4499.00  
A330/2200.....£4509.00  
A330/2205.....£4519.00  
A330/2210.....£4529.00  
A330/2215.....£4539.00  
A330/2220.....£4549.00  
A330/2225.....£4559.00  
A330/2230.....£4569.00  
A330/2235.....£4579.00  
A330/2240.....£4589.00  
A330/2245.....£4599.00  
A330/2250.....£4609.00  
A330/2255.....£4619.00  
A330/2260.....£4629.00  
A330/2265.....£4639.00  
A330/2270.....£4649.00  
A330/2275.....£4659.00  
A330/2280.....£4669.00  
A330/2285.....£4679.00  
A330/2290.....£4689.00  
A330/2295.....£4699.00  
A330/2300.....£4709.00  
A330/2305.....£4719.00  
A330/2310.....£4729.00  
A330/2315.....£4739.00  
A330/2320.....£4749.00  
A330/2325.....£4759.00  
A330/2330.....£4769.00  
A330/2335.....£4779.00  
A330/2340.....£4789.00  
A330/2345.....£4799.00  
A330/2350.....£4809.00  
A330/2355.....£4819.00  
A330/2360.....£4829.00  
A330/2365.....£4839.00  
A330/2370.....£4849.00  
A330/2375.....£4859.00  
A330/2380.....£4869.00  
A330/2385.....£4879.00  
A330/2390.....£4889.00  
A330/2395.....£4899.00  
A330/2400.....£4909.00  
A330/2405.....£4919.00  
A330/2410.....£4929.00  
A330/2415.....£4939.00  
A330/2420.....£4949.00  
A330/2425.....£4959.00  
A330/2430.....£4969.00  
A330/2435.....£4979.00  
A330/2440.....£4989.00  
A330/2445.....£4999.00  
A330/2450.....£5009.00  
A330/2455.....£5019.00  
A330/2460.....£5029.00  
A330/2465.....£5039.00  
A330/2470.....£5049.00  
A330/2475.....£5059.00  
A330/2480.....£5069.00  
A330/2485.....£5079.00  
A330/2490.....£5089.00  
A330/2495.....£5099.00  
A330/2500.....£5109.00  
A330/2505.....£5119.00  
A330/2510.....£5129.00  
A330/2515.....£5139.00  
A330/2520.....£5149.00  
A330/2525.....£5159.00  
A330/2530.....£5169.00  
A330/2535.....£5179.00  
A330/2540.....£5189.00  
A330/2545.....£5199.00  
A330/2550.....£5209.00  
A330/2555.....£5219.00  
A330/2560.....£5229.00  
A330/2565.....£5239.00  
A330/2570.....£5249.00  
A330/2575.....£5259.00  
A330/2580.....£5269.00  
A330/2585.....£5279.00  
A330/2590.....£5289.00  
A330/2595.....£5299.00  
A330/2600.....£5309.00  
A330/2605.....£5319.00  
A330/2610.....£5329.00  
A330/2615.....£5339.00  
A330/2620.....£5349.00  
A330/2625.....£5359.00  
A330/2630.....£5369.00  
A330/2635.....£5379.00  
A330/2640.....£5389.00  
A330/2645.....£5399.00  
A330/2650.....£5409.00  
A330/2655.....£5419.00  
A330/2660.....£5429.00  
A330/2665.....£5439.00  
A330/2670.....£5449.00  
A330/2675.....£5459.00  
A330/2680.....£5469.00  
A330/2685.....£5479.00  
A330/2690.....£5489.00  
A330/2695.....£5499.00  
A330/2700.....£5509.00  
A330/2705.....£5519.00  
A330/2710.....£5529.00  
A330/2715.....£5539.00  
A330/2720.....£5549.00  
A330/2725.....£5559.00  
A330/2730.....£5569.00  
A330/2735.....£5579.00  
A330/2740.....£5589.00  
A330/2745.....£5599.00  
A330/2750.....£5609.00  
A330/2755.....£5619.00  
A330/2760.....£5629.00  
A330/2765.....£5639.00  
A330/2770.....£5649.00  
A330/2775.....£5659.00  
A330/2780.....£5669.00  
A330/2785.....£5679.00  
A330/2790.....£5689.00  
A330/2795.....£5699.00  
A330/2800.....£5709.00  
A330/2805.....£5719.00  
A



# YOUR LAST CHANCE

TO BUY AT THESE LOW, LOW PRICES



**TWIST 2  
DATABASE**

**NOW £19**  
NORMAL PRICE £39<sup>99</sup>



**HISOFT BASIC  
COMPILER**

**NOW £15**  
NORMAL PRICE £39<sup>99</sup>



**DEVPAK 3  
ASSEMBLER**

**NOW £19**  
NORMAL PRICE £39<sup>99</sup>



**PASCAL  
COMPILER**

**NOW £15**  
NORMAL PRICE £39<sup>99</sup>



**MAKE-CD 1.2  
DISK-AT-ONCE**

**NOW £41**  
NORMAL PRICE £69<sup>99</sup>



**SOUNDPROBE 2**

**NOW £30**  
NORMAL PRICE £49<sup>99</sup>



**IBROWSE 1.23**

**NOW £20**  
NORMAL PRICE £29<sup>99</sup>

**CALL  
24hrs**

Outside office hours you may leave your order by our answering machine and it will be dealt with first day

## MORE BARGAINS

LOOK-UP	SURF SQUIRREL	£89	SAVE £30 <sup>99</sup>
	THE WHIPPET	£35	SAVE £14 <sup>99</sup>
	PRODIGI	£15	SAVE £9 <sup>99</sup>
LOOK-UP	AURA	£65	SAVE £30 <sup>99</sup>
	DESK MAGIC 2	£10	SAVE £9 <sup>99</sup>
LOOK-UP	MEDIA MAGIC	£10	SAVE £9 <sup>99</sup>

## MORE BARGAINS

## BEST PRICES

**RAM**

0MB 60ns SIMM	£15
16MB 60ns SIMM	£21
32MB 60ns SIMM	£35

**BEST PRICES**  
FOR PRICES CONTACT  
CALL FOR 24H SUPPORT & INFO

**HiSOFT**  
SYSTEMS

**0500 223 660**



Call free before 10pm to order your HiSoft product using your credit card over the phone. Minimum Visa/Debit/Amex. American Express etc. or by money order. Delivery £1.95 for the first item, just £1.95 for each additional item. Courier delivery £3.95. All items shipped in 24hrs for guaranteed next day delivery. Payment is absolutely essential. All orders subject to 40% VAT. All prices include postage. PLE and other payment orders. © 1994 HiSoft Systems

The Old School, Greenfield, Twickenham, Middlesex, UK  
Tel: 0181 622 7520/7521/7522 • Fax: 0181 622 7525/7526  
www.hisoft.co.uk • www.hisoft.com

